PHILADELPHIA MEDICAL TIMES.

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No. 555. APRIL 15, 1889. VOL. XIX

ORIGINAL ARTICLES.

THE SPECIAL FUNCTION OF THE AMERICAN ACADEMY OF MEDICINE.

Address of the President, delivered at the Annual Meeting in New York, 13th November, 1888.

BY FREDERIC HENRY GERRISH, A.M., M.D., Of Portland, Maine.

[*Continued from page* 443.]

The deficiency was long ago recognized by thoughtful men, indeed it has always been appreciated in some degree; and the dissatisfaction of those who saw clearly its lamentable results found frequent expression in various channels. National, state and other societies were often addressed on the subject by their presidents and orators, committees were appointed to devise plans for reform, and resolutions were adopted generally, if not invariably, without dissent. But the desired change did not appear. It is not difficult to induce an association to put itself on record to the effect that the standard of preparatory education must and shall be elevated; it is quite another thing to persuade the individuals composing the organization to act in accordance with this declaration.

To the greater number of members, the idea presented by one or two earnest men seems commendable, and they vote with that display of enthusiasm which good natured people are wont to show for a project in which they do not feel themselves especially concerned, and for which they are under no obligation to make any exertion. The echoes of their applause hardly die away before they disperse to their homes, and being removed from the sustaining atmosphere of the meeting, most of them lapse into their old slipshod ways. Their behavior reminds one of the riotous demonstrations of delight of the occupants of the galleries, when the hero of the drama pronounces some virtuous platitude. We hope that they are actuated in their daily lives by the holy motives for which they evince such admiration; but we have our fears that their practical morals are not blameless.

Few men have the hardihood to array themselves openly on the side of convicted ignorance, and therefore those members who inwardly dissent outwardly agree; but they wilfully persist in their vicious courses in private.

It is well that societies take such action. A main reason for their not effecting more is that the intervals between their declarations are too long, and the impression made at one time is nearly or quite effaced before another blow is struck. And so the reform is deferred.

Until a very recent period, any male of the human species who was apparently not less than seventeen years old, who would pay the stated fees, and whose complexion was sufficiently Caucasian, found no difficulty in entering even our most celebrated schools. Only females, children, the moneyless and negroes were excluded. Candidates for admission were not compelled to show the possession of the slightest knowledge. A few years ago, a small number of schools, after a prudent period of warning to those who contemplated medical study, established a preliminary examination. Generally, no pretence of a high standard was made; a grammar-school education only was required. But, though it was so insignificant an exaction, it made a difference in the attendance which is almost incredible to one not entirely familiar with the attainments of the average medical student. So great was this falling off that one of the largest schools in the country, for many years so prosperous that it evidently thought itself entirely secure in the affection of the profession, found its patronage shrunken in one year so alarmingly that it beat a hasty and ignoble retreat to its former position, and thereafter, as previously, put a premium on incapacity and dullness. The executive officer of one of these schools, which adhered to its advanced professions, says that he receives more letters of inquiry about the examination than about all other matters relating to the school. The number who are rejected at the examination is small compared with that of those who refrain from coming for fear of rejection. And thus the school has to witness the growing material prosperity of a rival institution which requires only cash of applicants, while its own classes are dwindling.

The movement towards a better preparation for technical training made little progress for some time, when, all at once, the circulars of many schools burst forth with the announcement that students must demonstrate their fitness for medical study. Had the leaven been working all these years, and suddenly displayed these effects? Had the eyes of so many faculties simultaneously been opened to the exceeding sinfulness of their former practices? Perhaps so; and yet, by a curious coincidence, these advertisements appeared not long after the Illinois State Board of Health proclaimed that, if schools wished their diplomas to be recognized in that State, they must have a preliminary examination.

It is one thing to profess, quite another thing to practise. It may be remembered that, at our last annual meeting, there were reported the results of an investigation of the requirements for preliminary education in the medical colleges of the United States. What the institutions announced was readily learned from Dr. Rauch's elaborate report; but to ascertain what they really required was much more difficult. It seemed necessary to adopt

detective methods, and a little child, who had but just learned to write with a pen, was the principal medium through which the desired information was obtained. Letters were written to most of the schools, confessing ignorance of some study which was advertised as essential to admission, and asking if that would be an impediment to entrance. "If a school declined to modify its rules for such a correspondent, there would still be no conclusive evidence that it might not do so in the case of a person who was exceptionally prepared in other branches, and lacking in a single one; but, if a school, publicly announcing that it admitted pupils only after they had proved themselves educated in certain lines, on such an appeal agreed to ignore an important branch of preparatory study, still more, if it eagerly besought the patronage of this evidently unfitted candidate, it may be fairly claimed that the institution had demonstrated the hollowness of its professions and the utter insincerity of its position. The plan adopted cannot be regarded as a test of the measure of virtue of a school, but rather as a test of its capacity for vice. The result of the investigation showed that about one quarter of our medical colleges make no pretence of requiring any real preliminary education in their pupils; a few hint vaguely at the desirability of some knowledge; and about two-thirds announce an examination or its equivalent, as shown by a certificate. Of these last one half adhere to their published rules, and the other half evidently do not mean what they say and stand detected in their abominable fraud. The actual standard is extremely low. A very few schools require a preliminary education which is an approach to an equipment for medical study; a considerable number insist upon a knowledge of the ordinary grammar-school branches, with a mere trifle of natural philosophy; the most will admit any man who can write an intelligible letter of inquiry and pay his tuition fee, however deficient he may be intellectually."

It would appear that the Illinois law has done much to stimulate the timid and reluctant schools to activity in a desirable direction; but it is evident that law alone will not accomplish all that is needed. Some will obey through fear; others will be set thinking as never before, and will acquiesce with the grace which waits on judgment; and others still will "keep the word of promise to the ear, and break it to the hope." "No." No law will succeed which is not sustained by public approval. To be sure, the existence of a law helps in creating a supporting sentiment, but the major part of this work must be done by different means.

Just here, it seems to me, opens the field of the Academy. In 1876, the year of its birth, when the seven founders were assembled in Philadelphia, largely through the influence of Traill Green, our first and sixth President, who graces our meeting to-day with his benignant and venerated presence, Dr. R. Lowry Sibbet read a paper entitled "The necessity of an organization which shall encourage a higher standard of qualifications in the medical profession." The key note that day sounded is ringing still. The other societies of physicians were established largely or wholly to promote technical knowledge, and only incidentally do they touch the interests of education. We have seen how futile are their spasmodic attempts at improvement of the quality and amount of teaching, how imperfect are the results of statutes on the subject, how essential it is that the profession itself should be converted to the belief that men who are to study medicine should have good minds, well trained and richly stored. How can this conversion be accomplished as speedily, as thoroughly, or I would almost say, at all, except through a special society? It is thus chiefly that men are persuaded in the matters of religion and politics. The experience of ages has demonstrated that these objects are not attained but through the agency of elaborate organizations, which toil unceasingly to achieve their peculiar ends. How ineffectual would be the church, if it relaxed for a moment its hold on its votaries, or diminished its watchfulness for opportunities to augment its power! What utter defeat awaits the the political party, which fails to reach and constantly to impress the remotest

hamlet with its arguments, and to keep in hand the whole body of its constituents! In these familiar examples we have have our lesson. We have not sufficiently appreciated the need of incessant agitation. Rarely is opinion changed by a single presentation of an argument, however powerful; but repetition at short intervals finally succeeds. *Non vi, sid sæpe cadendo.* As in the training of animals, and the education of children, so is it also in the persuasion of men—line upon line, precept upon precept, here a little and there a little.

It is evident that this work is purely philanthropic, and consequently is far less likely to attract a large following than that of other medical societies. One may say that their object, also, is the benefit of humanity; that they aim at the improvement of their members in medical science, and that thus mankind is helped to greater health, increased comfort and longer life. True; but, while they are thus learning how better to aid their fellow-men, they are perfecting themselves in the particular line of work by which they get their living. There is not this double incentive to labor in the Academy. Striving to elevate the standard of medical education does not make one more skilful as a physician or surgeon; on the contrary, it consumes time and strength which, if given to his regular labor, will make him a better practitioner and a richer. Our cause, therefore, calls for sacrifice, for unselfish devotion, for a spirit which is satisfied only with ideal results, for souls "alert with noble discontent, and upward yearnings of unstilled desire." And doubt not that it has them—not all in our company at present, but willing to join us, and eager to have a hand in the task.

But, it is doubtless in your thoughts that we should do other things than this; we should investigate scientific problems, and report our results at our meetings, proving by the superior quality of our contributions that a classical education has enabled us to surpass others not thus favored, and, in this way, to present an object lesson in support of our main proposition. In this view I do not agree; not that I have the slightest fear that the college-bred physician will not justify the claims that are made for him, as man, practitioner, investigator, author; but because, the most conspicuous efforts of the Academy should be according to the original design, in a purely educational direction, and it is impossible that, to any large extent, men who have original scientific conceptions will first announce them at our meetings, where there will be at any one time so few who are competent to appreciate the merits of the new ideas. The inventor of a novel operation for removing the uterus, however enthusiastic a Fellow of the Academy, will carry his paper describing the process to the Gynæcological Society, where he is sure of a large company, capable of estimating its worth. The neurologist will take his discovery to the association of specialists, whose daily experiences qualify them to hear him with full understanding; and so for all the rest, whether they cultivate limited portions of the great domain of medicine, or distribute their energies over it all. In the line of scientific work, we are handicapped from the start; we can offer no inducements which will, as a rule, attract the best efforts of the leaders.

The first step in our undertaking is the adoption of a plan for securing the fellowship of all who are eligible under our rules, and would be creditable associates. There is an unpleasant implication in these closing words, but it is unavoidable. We not only recognize the great attainments and generous culture of many men who have never graduated at a college, but we are compelled to admit that many who have received the baccalaureate degree possess little ability, and are not entitled to respect. The lion's hide has no monopoly in clothing the braying quadruped; too often we are chagrined to find that the sheepskin covers an ass. But the great majority of college-bred physicians would be welcome, and ought to be with us; and, with proper effort, we can win them.

Three years ago, Dr. Gihon, in his brilliant presidential address, after stating that the Academy had but 291 fellows, asked: "Is that much of a har-

vest after nine years' tilling?" What tilling, pray? What large effort was ever made to increase our numbers? In my State there has long been a respectable percentage of doctors of medicine, who also are bachelors of arts, and men of deservedly good repute; but their fellowship had not been sought, when our good friend discouragingly wrote his reasons "why this bantling has not made greater progress, and why it has no reason to expect it." That these worthy men were not indifferent to the purposes of our society, and only needed to be invited in the right way to engage in the unselfish task which it had set for itself, is sufficiently proven by the fact that, while there were but two fellows in Maine at that time, there are nearly forty-one to-day. I do not believe that "the time has come when every limitation to fellowship should be removed, except the solitary requirement that the candidate shall be in fact as in title, learned in medicine and in all else that that implies. Before we alter essentially the conditions of fellowship, we should gather under our banner all the eligibles who can be enlisted. Unless it is possible to demonstrate in this way that most college-bred physicians are so thoroughly convinced of the usefulness of their preparatory education that they are interested in the attempt to persuade others to pursue a like course, it is not probable that a large accession to our numbers will be made from among those who have had no such privileges in their youth. Though many of these last mentioned deeply deplore the meagreness of their early schooling, and make many sacrifices in order to give their sons a classical and scientific training, they could not be expected to wish admittance to a body which was avoided by those whom it was organized to include.

There are some physicians, however, though probably not many, who would be glad of an opportunity to enter the Academy on the passage of an examination, equivalent to that enforced in colleges conferring the degree of A. B. In this connection a letter, recently received by one of our Fellows, is of interest. The writer had been invited to apply for fellowship, but was obliged to decline, not being a college graduate. But he expresses deep interest in the Academy, and thinks that many, now debarred, might strive for fellowship, if it were possible to prove on examination the possession of such an education as the holding of a degree in arts indicates.

This suggestion, which comes from a gentleman of culture "whose influence," as the fellow, who hoped to be able to recommend his election, remarks, "would be most useful to the Academy," might be adopted without the least danger of lowering the grade of requirements; and it is not impossible that, in the future, when fellowship in our society has become a greater honor than at present, and is sought with anxious eagerness, the certificate of the Academy that such an examination has been passed with credit will be everywhere regarded as equal to a baccalaureate diploma.

Entertaining the views which have just been expressed, in disagreement with those pronounced here three years ago, I hoped to demonstrate in my administration the correctness of my position. It seemed to me that the Academy had a right to expect to make greater progress, even in this matter of numbers; and, therefore, a plan was formed to test the question. To a number of my medical friends was sent the following circular, in which it will be observed, no hope of personal advantage is held out as an inducement, no opportunity to gratify a taste for display is hinted at, no benefit to one's self is even implied, save the satisfaction which must come from the performance of duty; and with the circular were enclosed a blank for application and a brief letter, inviting to fellowship and asking permission to stand as sponsor.

(THE CIRCULAR.)

"THE AMERICAN ACADEMY OF MEDICINE, founded in 1876, is a society composed of physicians of at least three years' experience in practice, who, previously to graduation in medicine, received the degree of bachelor or master of arts, after a regular collegiate course. Its purpose is not to establish an aristocracy in the medical profession, but to advance the standard of requirements

preliminary to technical study, to elevate medical education to a plane far above that which it now occupies, and, by other similar means, to promote the welfare of the profession.

Already the purely scientific interests of medicine are provided for, as far as societies can further the cause, by organizations devoted to the development of the various specialties; but no other association has concentrated its attention on the field which the Academy was established to cultivate. It is believed that its purposes only need to be stated in order to arouse the hearty sympathy of those physicians whose preparatory studies and honorable standing make them eligible to its fellowship. The necessity for the work which the Academy is equipped to perform is too obvious to require demonstration, and it is in the highest degree desirable that every qualified physician should participate in this labor, not simply by using his individual efforts to influence those with whom he comes personally in contact, but also by uniting with those of his professional brethren, who entertain the same opinions and are actuated by the same high motives. Only by the combined and persistent endeavors of such men can medical education in this country be made what it ought to be, and this task is of the nature of an obligation, which the nobility of culture imposes upon all who bear its insignia.

It is earnestly hoped that each physician who receives this circular will display his willingness to share in this great undertaking by entering the Academy at an early date.

A blank application for fellowship is enclosed herewith."

The replies came so promptly and were so cordial that it seemed wise to propose the plan to my associates; for, if it was efficacious in the hands of one, why should it not prosper with all? consequently, to nearly every fellow was sent the following circular letter, with three of the explanatory leaves, three blank applications, a list of the Fellows in this State, a stamped envelope directed to myself for reply, and a personal autograph letter asking his aid.

AMERICAN ACADEMY OF MEDICINE.

PORTLAND, MINN., August, 1888.

DR.....

DEAR SIR,

The principal need of the Academy at present is a large membership. It is of the highest importance that practically all of the college-bred physicians in the United States should be entered on its rolls. To a great extent this result can be accomplished speedily through the efforts of the present Fellows, and only thus. Experience has demonstrated that few apply for membership without being invited; but it has also shown that, with proper urging, it is not difficult to induce men to join our ranks.

Heretofore no systematic attempt has been made to increase our fellowship; but such a measure is now projected, and in it I beg to ask your earnest co-operation.

There are doubtless in your neighborhood (city, county, State), or, at all events, among your acquaintances, some, I trust many, who will be induced by your personal persuasion to apply for admission. The method which has proved most successful is for the Fellow to write an *autograph* letter, stating the case, offering to stand as sponsor, requesting an early reply, and enclosing a blank for application, a circular setting forth the objects of the Academy, and a stamped envelope for the answer. If a response does not arrive in a fortnight, a second letter, calling attention to the first, is desirable. When the applications are received, the Fellow should sign the recommendation, and forward the papers to the president.

Three circulars and three blanks are enclosed herewith, and it will afford me much pleasure to supply you with as many more as you shall request.

The service which the Academy asks of you calls for the writing of a number of letters and the expenditure of some valuable time in the search for suitable candidates; but, certainly, it is not greater than any Fellow is more than willing to devote to the cause in which he enlisted by entering the Academy.

If every Fellow will do what he can to awaken the interest of his friends, our numbers will be immediately so augmented as to make the Academy a most powerful and honored organization, and enable it to contribute in a hitherto unexampled manner to the accomplishment of the reforms which it was instituted to promote.

Hoping for your support and encouragement in this work, and awaiting your reply with eagerness, I am

Respectfully yours,
FREDERIC HENRY GERRISH,
President.

I am obliged to confess that the result has fallen far short of what seemed moderate anticipation. That most of the letters were delivered would seem to be sufficiently attested by the return of only one as uncalled for. Less than half were answered in any way, though a second circular letter, requesting attention to the first, was sent to all who had not replied. Forty-five applications were gathered by twenty-six Fellows, in addition to fifty-three, which were secured by one other; so that we add ninety-eight to our membership—more than in any two years previously. Probably this does not represent the entire product of the scheme: some have reported themselves as expecting to procure applications, and these will swell the list of next year. My highest hope was to double our numbers; for I

thought that there could be few Fellows, who had not among their acquaintances some who are eligible and would accept an invitation to fellowship. When one Fellow can obtain, without difficulty, more than fifty applications —a number exceeding the entire admissions in any former year—it is not reasonable to suppose that the other three hundred cannot procure an average of one apiece with slight exertion.

The cause of so small a return for the prolonged and irksome toil which it cost are doubtless, first, the fact that the vitality of the Academy was almost suspended during the year immediately preceding; it was proposed to omit the annual meeting, and, when held, it was almost spiritless; the papers were few, hardly enough additions were made to compensate for the mortality subtractions, and nobody could have felt otherwise than depressed at the dismal performance. It takes time and powerful effort to regain so much lost ground; and it is to be hoped that the Fellows will never again allow themselves to be deluded with the notion that any society will progress, or even keep alive, without the devoted care and constant activity of its members. Health and vigor cannot be looked for in the prolonged absence of nourishment and exercise—a commonplace which ought not to be required in an assemblage of physiologists. Second, it is unquestionably true of our association, as of every other of which I have knowledge, that it contains many indifferent members. who are not inaptly called dead-wood. This is the kind of men who are never willing to do anything but share in the success which others have won, and administer caustic rebuke in the absence of failure. Third, it was unfortunate in this regard, to have a president of whom the Fellows knew almost nothing. Finally, and more potent as a reason for the failure of the scheme than all the foregoing, was the fact that the Fellows had never been made to understand that each of them was under obligation to promote the welfare of the Academy. The most useful, as well as most conspicuous feature of the plan proposed is the inclusion of every Fellow in the proposed work.

If all the labor of a society is performed by a few members, that organization contains an element of weakness that may at any time destroy it. But if every individual composing the whole makes a regular contribution to its support, each must feel an interest in its prosperity, which is otherwise impossible. In the Academy we have no annual tax of money, and, after paying his initiation fee, no Fellow has been called upon for any services which he could consider obligatory, unless he has acccepted an official position. Consequently, there has been no demand upon the loyalty or energy of the members generally, and it is not wonderful that their interest has been small. If they had been asked frequently to render some aid to the cause, if in any way the necessities of the situation had been kept before them, the attempt which has been made would have been crowned with success, and we might to-day rejoice in a membership of two or three thousand.

The experience of the past should guide our future conduct. I suggest, therefore, that a committee of three Fellows who are widely and favorably known, energetic and willing to give hard work to the cause, be appointed, with instructions to procure the address of each physician in the United States who is eligible to fellowship under our rules; to ascertain his standing; to furnish him with a historical sketch of the Academy, a list of its Fellows, a brief statement of its purposes and principles, and an invitation to enter it. The fellow from whom favorable information is obtained will stand as the candidate's sponsor. I feel a good deal of confidence that our numbers could be trebled, perhaps quadrupled, by this system in one year. I recommend the appropriation of $200 to defray the expenses of this committee.

Not only does the Academy need a large increase in numbers, but means should be taken to arouse the flagging enthusiasm of the Fellows. Many who do not know much about our society would be gratified and awakened by full information concerning it. To this end I make several suggestions:

A need which has been often felt is a catalogue of our Fellows. Once, at

least, it was thought to have been provided for; but nothing came of the attempt. I advise, therefore, the appointment of a committee of three Fellows, instructed to prepare and publish a catalogue of the Academy, containing the following data concerning each living Fellow or Honorary Member, his name in full; post-office address; collegiate degrees received, with date of each, and name of institution conferring them; official positions of importance held by him, such as professorships, physician or surgeon to hospitals, membership in State Boards of Health, principal offices in important societies; high political appointments; the titles of three volumes, and of three pamphlets or articles of which he is the author. The catalogue should also contain the name of each deceased Fellow and Honorary Member, and of his last place of residence, the date and place of his death, his age, and the dates of his degrees, positions and writings which would be presented, if he were still living. A copy of this catalogue should be sent to each Fellow, to every respectable medical journal, and to every public medical library in the country. One hundred copies more than are needed for these purposes should be printed, and sold to parties wishing to purchase them.

A sum not exceeding two hundred and fifty dollars should be appropriated for the expenses of this committee.

The by-laws provide that the council of the Academy shall "decide upon and superintend all its publications," and that the secretary "shall edit the transactions in the manner and style agreed upon by the council." Hitherto the presidents address has usually been published in pamphlet form, and distributed to the Fellows, and a very few other papers have been thus honored; but "the transactions" referred to in the by-laws have not been issued. It would seem that the time has come for a action in the premises. The whole business is in the control of the council; but that committee will unquestionably receive with pleasure an expression of the wishes of the Academy. It would be wise for the council to select for publication such of this year's essays as seem worthy of the distinction, ascertain the cost of printing and binding five hundred copies, and the number of these which would be purchased at cost by the Fellows. If the demand should warrant the attempt, the business could be undertaken with no chance of burdening our treasury, and with a most beneficial effect upon the reputation of our society.

A few years after the founding of the Academy, a Latin certificate of membership was prepared and engraved. The price of this certificate, printed on parchment, is fixed by the constitution at ten dollars, a sum so large as to be almost prohibitory. Only fifty-one copies have been sold. The plate was paid for long ago, and there appears to be no good reason for continuing a policy which practically deprives most of our members of an official certificate of fellowship, worthy of the dignity of the organization. I therefore propose a change in the constitution, reducing the sum to be paid for these diplomas to cost, which, at present rates would not exceed two dollars each. Very soon after the passage of this amendment, there will be a brisk demand for these parchments, and our society will be brought prominently to the attention of thousands who have never heard of it before. Let us hope that the time is not far distant when the Academy shall be so prosperous that the admission fee can safely be raised to a price which shall enable it to issue a diploma to every fellow on admission, without additional charge.

It is not a small task to procure essayists for our meetings. Our Fellows are busy men, most being actively engaged in practice, and very many being teachers in colleges, physicians and surgeons in hospitals, editors, authors, and frequent contributors to medical societies; and very few voluntarily offer papers to the Academy. To illustrate the labor of providing acceptable entertainment for a meeting, it may be remarked that the present programme is the result of nearly fifty urgent invitations by the president, and a large number by the secretary. I suggest that a special committee be charged with this duty for the ensuing year.

The initial meeting of the Congress of American Physicians and Surgeons

was held in the City of Washington this year, and the success of the venture was sufficient to make it probable that a similar gathering will take place hereafter triennially. It is advisable for the Academy to consider the expediency of associating itself with the other societies composing the Congress, and thus bringing it into more prominent notice than it has hitherto enjoyed.

At our last meeting in this city, seven amendments to the constitution were proposed by six different Fellows. These were laid over without decisive action at Pittsburgh, and again at Washington, and now they present themselves anew for your consideration.

They naturally are arranged in two distinct groups, six being in one, and one in the other. Those of the first set relate to membership. It is pertinent for me to mention them, and offer my comments, which I do with sincere appreciation of the loyalty of the proposers, and most hearty regret at being constrained to differ with them on points which they have much at heart, and firmly believe to be important for the welfare of the Academy.

Dr. Sibbet wishes to have a provision for "corresponding members," who shall be distinguished medical men in foreign lands. I would prefer to delay this movement, until we shall be able to communicate to such gentlemen as shall be interested to correspond with us, tidings concerning medical education in America of a kind more creditable to our own land.

Dr. Sibbet also proposes that "candidates having other literary degrees than Bachelor of Arts or Master of Arts may be elected as Fellows, provided they shall not exceed five percentum of the whole number; and provided also, that they shall have contributed to the literature of the profession." For instance, a gentleman who is not a college alumnus, but has received an honorary degree of Doctor of Philosophy, might be admitted under this rule; whereas, an equally well-educated physician who has no literary degree except an honorary A.M., cannot enter. This may not be what is intended, but the rule would be easily capable of the construction which I have put upon it.

It is clear to my mind that we are not acting with entire consistency in excluding those, who, instead of the degree of Bachelor of Arts, have taken that of Bachelor of Science, or Bachelor of Philosophy. One would expect us to put the two on the same footing, judging from the words of our constitution, which says:

"The objects of the Academy shall be (1) to bring those who are Alumni of Classical, *Scientific*, and Medical schools into closer relations with each other; (2) to encourage young men to pursue regular courses of study in Classical and *Scientific* institutions before entering upon the study of medicine." In many colleges the students in the same class, while pursuing identical lines in most repects, follow diverging lines in others. The drill is equally severe, the mental discipline probably as great in one as in the other; but, because one group has chosen to pay particular attention to the humanities, and the other has selected a curriculum in which the natural sciences have had a more prominent place, the degree in arts is conferred on the one, and that in science on the other. The A. B., and the B. S. are intended to balance in the academic scales. On what ground do we decide the one to be evidence of a good education, and ignore the four years of studious application which is represented by the others? Suppose that a young man has looked forward to our fellowship as a coveted honor, and decides on the strength of our counsel in Article II of the constitution to take a regular preparatory course. His tastes lead him toward the physical sciences rather than to the classics, and without noticing the restrictions in Article III, he follows the plan which ends in the B. S. degree. He is as able, as well-furnished mentally, as upright as his brother, who is A. B. But, after the two have become doctors of medicine, the latter can enjoy our association, and the former is excluded. Would he not feel an excusable bitterness at our treatment of him?

I hold in my hand an application from a physician who has been engaged in practice eleven years, is a Bachelor of Science and a Doctor of Philosophy. His sponsor knowing him to be

college-bred, thought that he was a Bachelor of Arts; but learning the fact, writes, "If any discretion is allowed, I would strongly recommend his admission." It seems to me that the interests of the Academy would not suffer by recognizing B. S. and Ph. B. D. as the equals of A. B., provided that they have been obtained after a regular four years' course. But an amendment must be differently worded from that under discussion in order to effect this result.

Dr. Gihon would admit "graduates in medicine, who, having no degree in letters received in course, have distinguished themselves in medicine and collateral sciences." Literally interpreted this rule would open the door to no dangerously large number, for while many who have no literary degree distinguish themselves in medicine, very few become noted for their learning in collateral sciences also. But substituting "or" for "and," will it not be better to leave this matter as it is, until we have gathered in all the good men possible under our existing rule?

Dr. Bush would give the council power to nominate for fellowship any honorable physician, who has distinguished himself by the production of any valuable publication. On this proposition the same criticism is offered as on the preceding.

Dr. Edward Jackson would have for each candidate three sponsors, who should write out a statement of his fitness. After a year's deliberation the council may report on the case, and the society may elect. At a time like the present, when the chief need of the Academy seems to be a large increase of members, it would hardly be politic to make admission more difficult than it is now. The Academy probably has enough confidence in the discretion of its fellows, to take the approval of any one of them as abundant testimony to the fitness of a candidate.

Dr. McIntire would have the election of an applicant delayed a year after the approving report of the council is made. This would be a safe-guard against the introduction of undesirable persons; but the year of waiting would be unnecessarily annoying to the candidate, because the same advantage would be gained by the simple device of having each Fellow supplied with a list of applicants a short time before the annual meeting. Then, if any Fellow wished to object to the admission of any one whose name was thus presented, he could readily do so by letter or in person. This method works admirably in the Maine Medical Association, in which it has long been in operation.

The sole proposal of the second set relates to an utterly different subject. Dr. Sutton, one of our charter members, and but recently our president, advocates a change in Article VIII, Section I. At present the paragraph runs thus: "The Fellows of the Academy, in their relations with each other and with their fellow-men, agree to be governed by the principles embodied in the present code of ethics of the American Medical Association, and by the constitution and by-laws of the Academy." Dr. Sutton desires to have this amended to read as follows:

"The Fellows of the Academy will be governed by those principles which actuate educated, cultured and honorable men in every profession, and by the Constitution and By-Laws of the Academy."

To this proposition I trust that the society will give its most serious and judicial meditations. For my own part, I have no objections to the principles embodied in the Code of the American Medical Association. The expression of them seems to me to be not altogether felicitous; but if I understand them, they are worthy of approval. During the unhappy controversy over the Code in this State several years ago, my sympathies were with the old code men. It would be only harmful now to revive in detail the memories of that extremely unfortunate episode. Nobody on either side would wish to renew the discussion, with its attendant circumstances of ill-feeling and hostile exhibitions. But though I entertain no desire to have my State Medical Association abolish its Code, which is that of the national society, I believe that the Academy will act wisely if it adopts the alteration under consideration. If we had no Code, it would not occur to us that one was

needed. We are here not as therapeutists, but as reformers. If we discard all allusions to codes, we shall be in no peril of an invasion of wicked or crazy irregulars; for no candidate's application can be considered without the approving signature of a Fellow in good standing. We need have no suspicion that the proposer of the alteration is plotting to obtain our sanction in advance to orgies of unholy consultations. But more important than these thoughts is the fact, encountered by more than one of us in his search for applicants, that the presence in our Constitution of the paragraph under discussion is an obstacle of the gravest nature in the way of an increase in our members. The objection does not come from the weak and whimsical, but from strong, high-minded thinkers. Many have been offended by what they consider the unjust and tyrannical conduct of the American Medical Association, and shun membership in any society which even seems to be a satellite of it. After three years in which to ponder on the subject, I have fully decided that the adoption of this amendment is consistent with the strict orthodox principles of medical ethics on which I was reared, and is for the best interests of the Academy.

Never before has it been appropriate to address the Academy as "Ladies and Gentlemen;" but to-day it is my privilege to use this significant expression. You have accepted as Fellows a number of women, and henceforth we who have labored in this society for the advancement of medical education are to have the co-operation of the sex, long excluded from medical associations, but now admitted on an equal footing with men in some of the foremost of our professional organizations. It is indicative of a marked change of sentiment and opinion that bodies as conservative as the Massachusetts Medical Society and the Philadelphia County Medical Society have opened their doors to all, without reference to sex, who have the requisite ability and training. It is not creditable to our country or in keeping with the liberality which theoretically characterizes our institutions, that a discrimination should so long have been made against women in scientific associations. But considerations of justice have at last prevailed so generally that, at the present time, the opposition to educated physicians on account of sex is feeble, compared to the violent antagonism which formerly existed. The stock arguments that women have not the physical strength to sustain them in the trials of practice, that they lack the intellectual capacity and the moral force which we deem essential, have ceased to have weight. Facts, easily observed, prove the contrary. There are too many women practicing medicine scientifically, skilfully, successfully, and without injury to their health, to permit such objections to influence any one who is well informed. Having been the medical teacher of many women, and having watched the careers of a considerable number with peculiar interest and satisfaction, I feel fully justified in the prediction that the Academy will be strengthened by the admission of the gentle-women who have entered to-day, and will never regret this departure from its former usages.

It is noteworthy that some of the staunchest upholders of a strict preliminary examination, as ascertained by the detective work of our committee on the subject last year, were the schools managed by women. They had advanced their standand because they saw the necessity for reform, and they adhered honestly to their published rules, as so many of the schools for men did not. The proportion of those which stood by their colors was much greater among the women than among the men.

It is simply justice to the Academy to state that it has never objected to the admission of women. This year is the first in which women have applied for fellowship.

Since our last meeting the grave has closed over several of our associates. Of these the most distinguished was Cornelius Rea Agnew, whose sudden death shocked the community and left a void so great that it will not cease to be felt as long as any survive, who knew him. His splendid natural endowments, his complete development, his transcendent achievements, his moral elevation, have all been the subjects of eloquent eulogies so recently,

that further mention of them is superfluous here.

It would be unjust to my feelings, were this occasion to be allowed to pass without my paying a tribute to the memory of the one of our lost companions whom I knew most intimately, Edward Swift Dunster. He was still a young man when I first became acquainted with him, but he had already made an enviable reputation as a writer and lecturer. We were associated for two years in the faculty of a large medical school, and, from sympathy of tastes and community of interests, we were much together. He honored me with his friendship, and the memory of it remains with me like a precious benediction.

His varied and accurate learning, his scholarly instincts, his choice and elegant diction, and his ready wit combined to make him a most entertaining companion and a teacher of unusual brilliancy and power. But though he won my admiration for these attractive attributes, I chiefly delight to think of him as a bold and tireless advocate of the principles for which the Academy contends. Early and late he struggled with the prejudices, the indifference, the stolid and unteachable conservatism which those who should have aided him threw continually in his way; and just when the path began to be clearer, and hope was strengthening into expectation, the fatal summons came, and the task which he had set himself was left unfinished.

His death is a distinct and irreparable loss to the cause of sound medical education. His vacant place should be a continual reminder of the work which still remains to be done, and should stimulate us to renewed exertions.

In obedience to our rules, I have written this address. I have not attempted an oration, for my conception of my duty compelled the belief that the required paper should be of a business character. Consequently avoiding rhetorical horticulture, I have given an account of my stewardship, and have expressed my views of the functions of the Academy, and of the best methods to pursue in order to compass the desired results.

A year ago, when you paid me the compliment of elevation to the presidency, my surprise at the altogether unsought and unanticipated election prevented an adequate and seemly acknowledgment of your partiality. I could merely stammer my thanks and a promise to do my best to promote the interests of the Academy. My term of service closes at this meeting; and, as I look back upon it, I find that the hopes, which seemed at first to be easy of realization, have been but imperfectly fulfilled. But I have no broken promise to regret, for I have really done what I could for the Academy.

I am fully persuaded that less harm per year would ensue from the absolute cessation of all progress in medical discovery and invention, than now results from the low standard of preliminary and technical education. I believe, too, that our cause needs courageous, persistent and aggressive action. Holding these opinions, the labor which I have done has been the practical expression of a conviction of duty. And my only grief in contemplation of the result is that my best has been so poor.

CASES TREATED BY ICE TO THE SPINE: AFTER DR. JOHN CHAPMAN'S METHOD.

BY B. O. KINNEAR, M. D.

New York City.

GENERAL O.—Fifty-two years old. I examined this gentleman on the 17th of August, 1884. He suffers from constant insomnia, which has continued with little sleep daily during the previous year. The slightest mental exertion induces great cerebral excitement and intense general nervousness. Noises annoy him much, and any little worry assumes great proportions. The head is constantly hot, with an always present sense of fulness and tension. The face is flushed and the conjunctivæ injected. There is total inability to digest solid food. It passes through the alimentary canal unchanged, causing at the same time watery eructations and a mucous diarrhœa. Liquid foods seem to be assimilated. During their use the bowels are

constipated. The arms and thoracic region are hotter than normal, while the abdomen, legs and feet are unnaturally cool. There are "points douloureux" over the abdominal surface. The pain is not increased on firm pressure; but on walking, even one or two hundred yards, it develops into severe suffering; thus physical exercise cannot be endured. Even sitting erect or stretching the legs increases the pain, and the prone position is the only comfortable one. There is usually an exacerbation of pain at three or four A. M. The last six dorsal spines are tender on pressure.

History: Has always been remarkably strong, both mentally and physically. Has had two attacks of yellow fever, in 1850 and 1853. In 1849 was badly burned with powder. Was threatened with sun-stroke while in the army, and just before this illness began was prostrated after a long walk on a hot day, suffering much in the head. His disease has been pronounced chronic peritonitis. This gentleman was treated entirely by the dorso-lumbar ice bag of Dr. Chapman, with the addition of an occasional application of heat in a double columned hot water bag over the cervico-dorsal sympathetic ganglia.

The progress toward recovery is as follows, viz., August 18th, 1884: The bag was filled with small pieces of cracked ice and placed over the dorso-lumbar spinal region. In an hour, the patient's legs felt warmer, and, as he described it, "there is a pleasant glow through them."

At the same time, the flush left the face, and he remarked that "the head does not feel so heavy as usual."

The pain in the abdomen was relieved through the evening, and he could sit erect, without discomfort. August 19th: Slept from ten P. M. until two A. M., but little afterwards. The pain recurred as usual, and had much heat of the head. The brain feels better this morning, and he is stronger, physically, than hitherto.

Passed a quiet and more comfortable day. Ice used seven hours in every twenty-four hours, for one hour or one and a half at a time. August 20th, slept from ten P. M. until half past three A. M.; dozed afterwards, and suffered little from pain. *Walked one mile to-day* without suffering. Can also sit upright and stretch his legs, without pain.

August 21st, slept until two A. M., when he wakened, but in a short time fell asleep again and did not rouse until seven A. M. "The best night's sleep for a year." He feels refreshed, the eyes are looking clear and bright, and the complexion is much improved. The stool passed to-day is a natural one, being usually both lumpy and hard. No pain or soreness about the abdomen. Walked a mile to-day.

August 22d, passed a restless night; some heaviness of the head, and tenderness over the abdomen. The symptoms were quite relieved by the morning ice bag. Walked 2½ miles to-day, without weakness or pain. Legs and feet warm; head and upper body cool; bowels moving naturally August 25th.

On August 23d, he suffered from biliousness and slept badly; 5 gr. of calomel were given at night, followed in the morning by a Seidlitz powder. The medicine acted thoroughly, relieving all the old symptoms which had temporarily recurred. He was kept pretty quiet on the 24th inst.; but on August 25th, he spent the day at a seaside resort, walking and standing constantly without fatigue or pain.

To-day he ate three solid meals, after some persuasion, with enjoyment, and no after watery eructations or diarrhœa. Slept well on the night of the 24th inst., and no longer looks like an invalid.

August 26th, passed a capital night. The head is clear and noise no longer disturbs him; feels strong and like himself. From this time forward the patient ate solid food, as when in his former health, though warned not to use coffee or wine, and only to drink weak tea. August 28th, suffered from a second bilious attack, which was promptly relieved. This gentleman remained under my direct care for five weeks, at the end of which time he was greatly relieved, being able to eat well and to walk five miles a day with enjoyment. The mental excitement and nervousness are much better. The head is no longer hot; there is no abdominal pain; the lower dorsal spines are no longer tender on pressure; the feet, legs and abdomen are of a nor-

mal temperature; the spirits are good; the tension and fulness in the head are gone. He is able to converse without fatigue, and to do some business.

Feb. 15, 1889, he has remained well ever since, having exerted himself both mentally and physically, almost as actively as ever, but without relapse. He has attended to a large and anxious business ever since.

The ice bag was used at first seven hours per day, afterwards decreased steadily until at the end of six months once every day for an hour, or every second day was sufficient. He has used it at intervals when necessary ever since, but is in much better health today than for several years before his illness. No internal remedy has been used, except the calomel, when required for its effect on the secretion of the liver.

Diagnosis and rationale of treatment. According to Dr. Chapman's system, the insomnia, heat of head, mental excitability, injection of conjunctivæ, deep flush of the face, sense of fulness and tension, denoted a dilated and active circulation in the brain and head. The sympathetic ganglia of the cervico-dorsal region were, therefore, not sufficiently nourished to furnish to the muscular coats of the arteries of the head and brain their usual normal contracting nervous currents. These ganglia were insufficiently supplied with blood; and not only these, but those ganglia controlling the circulation in the thorax and arms.[1]

The inability to digest solid food, with the resulting watery eructations and diarrhœa, demonstrated excitement of nervous centres supplying the mucous cells of the stomach and intestinal tract. The "points douloureux" indicated hyperæmia of the dorsal sensory centres; and the cool abdomen and legs and feet implied a hyperæmia of the dorso-lumbar sympathetic ganglia supplying nerves to the contractile coats of the arteries in the lower body and extremities. The tenderness over the lower dorsal denoted hyperæmia of that portion of the cord. The dorso-lumbar ice bag overcoming the active hyperæmia of the centres, pain ceased over the abdomen. The arteries in the abdominal viscera dilated, thereby increasing the gastric, biliary and pancreatic secretions, while the excessive secretion from the mucous glands ceased, and normal digestion, as well as normal action of the bowels, took place. The arteries in the lower extremities dilating, also, these parts became warm and much stronger; while as a consequence of the increased circulation in the lower body, the excess was withdrawn from the brain and head and upper body. Contraction of the bloodvessels in the brain resulting, normal sleep was induced,[2] and this vital organ was refreshed and strengthened after its long period of excessive stimulation, through its excessive blood supply.

[1] "Control of cerebral circulation," page 13. "The Sympathetic Nerve." C. V. Chapin, 1881. "It is generally considered at the present day, that most of these fibres are contained primarily in the sympathetic, in the neck." His authorities are: Bernard, Vulpian, Donders, Callenfells, etc.

HERPES ZOSTER.

I have treated successfully four cases of Z. Pectoralis by a ten inch Chapman ice bag applied over the lower two-thirds of the dorsal vertebræ. No other treatment whatever was necessary, either external or internal, and yet in twenty-four hours after the use of the first bag the vesicles began to shrivel and their fluid contents to absorb, while the first application was of great relief to the very severe shooting and burning pain experienced in two of the patients treated. Sleep was also induced and the intense nervous irritability calmed.

Case I.—G. S., a gentleman of more than sixty years of age. The burning was severe, and the eruption extensive, upon the left side, running from the median line across and around the lower dorsal ribs to within about three inches of the vertebral spines.

The ice bag was used for 1½ hours twice a day, the patient remaining very comfortable between the applications; and the vesicles very shortly were

[2] "Sleeplessness, its Causes and Treatments," Birmingham Medical Review, April, 1882, by W. E. Green, M. D.; also "Guy's Hospital Reports," Dr. Durham, "Anæmia of Brain the Normal Condition During Sleep."

reduced to scabs. The application was continued for two weeks from the beginning of the attack. The diseased parts were then looking quite normal, with no resulting ulcerations or neuralgia.

Case II.—A boy of 12 years, I saw the third day after seizure. He suffered little pain, but was cross and nervous. A small ice bag was applied three times a day, for an hour, over the lower dorsal vertebræ, and on the fourth day only a few scabs were left. Ice was used an hour per day, for two or three days, to complete the recovery.

No following neuralgia or ulceration.

Case III.—A lady of middle age had been suffering great pain for five days when I saw her, and having mental troubles at the same time added to the physical one, she was in a dreadfully nervous condition. The herpes was extensive, round the body under the left breast, and fully developed. The first application of the bag was of immense comfort. She used it for two weeks, three hours per day, ½ hour at a time, over the last eight dorsal vertebræ. The inflamed vesicles were reduced to dry scabs in forty-eight hours, and in four or five days only some thin scabs, surrounded by normal looking skin, remained. The pain continued with much lessened severity for three weeks from the beginning of treatment; then ceased altogether. There were no ulcerations left, cicatrices, or neuralgia.

Case IV.—A lady aged 60. The ice bag was used only three times in this case, the patient having been frightened about the treatment; nevertheless, the vesicles dried in two days, and she suffered less severely for the following ten days. There was no resulting neuralgia, nor any ulcerations.

These four cases were all typical "Zoster," and in all the very acute symptoms were at once relieved. The progress of the disease was stopped and convalescence soon established, while the annoying neuralgia and ulcerations, as sequelæ in severe cases, were prevented.

Rationale of treatment after Chapman's method. The spinal trophic and sensory centres were hyperæmic, giving rise to pain and the characteristic eruption. Ice over the hyper-nourished centres expelled the excess of blood, and lessened the strong nervous currents producing the pain and eruption. Duhring has recommended the constant galvanic current as valuable in the treatment of zoster. Believing as I do that it acts in the same way as the Chapman ice bag, but not so efficiently or powerfully, its restorative effect may thus be accounted for, viz.: by lessening the hyperæmia of the involved centres. In corroboration of the view arrived at by the study of, and the results obtained by Dr. Chapman's method, Bärensprung represented the view that the disease was one of the ganglionic system. He determined the primary seat of the affection to be the *spinal ganglia.*

"In cases of zoster of the trunk, he found the intercostal nerves thickened and injected, with their *spinal ganglia* softened and altered in structure, the inflammation *always* extending[1] *from* the ganglia to the periphery."

Meidner records changes not unlike those observed by Bärensprung.[2]

These cases, with the results obtained by cold over the spinal cord and the ganglia, go to corroborate the views and observations of the authors quoted.

SPASMODIC CROUP.

L. D.—In February, 1883, I was hurriedly sent for in the afternoon, and found on my arrival the patient, a colored child eighteen months old, suffering from spasmodic croup, and apparently dying. The respiration was about 80 per minute, and the breathing exceedingly labored, being apparently, chiefly performed by the accessory respiratory muscles. The child had already suffered for forty-eight hours without relief, and almost without nourishment, and was very much exhausted.

Asphyxia was momentarily threatened and immediate active treatment was required. I applied a bag one and a half inches long, filled with finely cracked ice, over the cervico-dorsal region of the spine, holding it in place on account of the constant restlessness of the child.

[1] Italics are mine.

[2] "Duhring on the Skin," page 235.

In fifteen minutes the breathing was much easier, and respiration was neither so rapid nor labored. The patient fell asleep and remained so for an hour. The bag was refilled as fast as the ice melted, and kept in place for two hours. It was then removed for an hour, applied again for two hours and used in this way through the night.

After the first application of ice the head was found to be very hot, and the following bags were placed only over the dorsal region, with relief to the head and continued ease to the attack. The child slept most of the night, and drank a large goblet full of milk.

The following morning I found the patient sitting up, with a somewhat labored and sonorous respiration, but cheerful, and the number of respirations almost normal. On this day the bag was used for six hours, on the second day three hours, and on the third day one hour. The patient was then quite well, with a good appetite and normal breathing.

She had had several attacks of croup before this seizure, but has only had one since, which was immediately checked by the ice bag, over the same region of the spine. In two other cases I have succeeded in entirely curing the disease. Both of these latter cases were chronic; that is to say, that almost every week or ten days, for the year previous to my treatment, they had night attacks of croup; and the parents were exceedingly anxious. The bag was used daily, at intervals for about two months, with permanent relief. The condition requiring to be overcome is spasm of the larynx; this spasm in this form of croup, being due to excessive nervous action of the superior and inferior laryngeal nerves, which supply sensation and motor power to the muscles of the larynx and trachea.[1] Hyperæmia of the cells in the pneumogastric centre originating these nerves, by generating abnormal nervous currents issued to the muscles of the larynx, induce the attacks. The ice over the cervico-dorsal region, by dilating the arteries of the brain and thoracic region, withdraws the excess of blood from the laryngeal centres; the result being that the muscular spasm of the larynx relaxes, air passes freely into the air cells, the general circulation becomes normal and the seizure passes away.

[1] See Pneumogastric Nerve. Allen's Anatomy.

THE MORPHOLOGY OF RHEUMATIC BLOOD.[1]

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Color varies from that of health to that of anæmia.

Consistency and rapidity of clotting, increased very much from that of health.

I. *The red corpuscles*, color usually impaired, but not always.

Coloring matter not so firmly held as in health.

Adhesive, sticky, often drawn out in elongated, lozenge shaped-bodies, with pointed ends, and sometimes stretched out in filaments joining with one or more of their fellows.

Clot in windrows, ridges and huddled masses, sometimes quite formless. This is caused by the massive fibrin filaments holding them fast, as it were, in their firm meshes and their great adhesiveness, being more or less deprived of their coating of neurine. The same condition is found in consumptive blood, but to a less degree. In fibrous consumption, they are much more marked. It may be remarked here, that this kinship between consumptive and rheumatic blood is due to an acid condition produced by the growth and development of the acetic acid vinegar plant in the blood and in the alimentary canal. When the blood is aciduous to an unusual degree, the adhesion of the red blood corpuscles is increased still more.

II. *The white corpuscles*, usually enlarged, adhesive, stick to each other, to the red corpuscles, to the fibrin filaments and to the form elements.

[1] Read before the Section of General Medicine, Ninth International Medical Congress, and illustrated by lantern slides of micro-photographs and drawings, Sept. 8, 1887.

Indeed, it seems to be the office of the white corpuscles, so far as possible, to swallow, increase and envelop any foreign substance that may find its way into the blood. Thus, we find crystalline bodies in the white blood corpuscles in rheumatism, though not always. They undergo amœboid movements as in healthy blood. They have independent locomotion. Disease does not seen to impair their automatic movements. Often they are increased in number. Sometimes diminished in number. If there is fatty degeneration going on anywhere in the system, they will usually be found to contain fat in globules.

III. *The serum.*

A. *Fibrin filaments*, in massive and sticky threads in abundance—in meshes which are finer than in health, plainly visible—strong, and hold the red corpuscles like prisoners—in skeins like the tangled skeins of silk—sometimes in large long cylindrical frayed, sometimes frayed strings wound up in a coil like a string tied round the four fingers, and embracing the other form elements in the blood, in masses forming thrombi, which, when fastened in the caliber of a bloodvessel, form emboli.

These thrombi are apt to involve and embrace white and red corpuscles and crystalline bodies to be named below. When the fibrin filaments are found in large round strings handsomely curled up by the motion of the blood stream, and looking like the mycelial filaments of a vegetation, they can be distinguished from vegetation by the absence of entire cylindrical outline—ragged, broken edges, here and there, and bichotomous and polychotomous divisions of the trunk, different from the mycelial filaments of syphilis for example. It is the presence of these fibrin filaments, in addition to the stickiness of the red blood corpuscles, that makes the blood ropy, sticky and adhesive in rheumatism. They have the tendency to block up the blood stream, and besides to be locally deposited in and on the adjacent tissues, specially when the circulation is sluggish around the joints, for example.

B. *Fibræmia.* In a nomenclature which was made before the present advance of knowledge there is difficulty to make it fit to the new era. I shall not attempt to relieve this difficulty, but try to adapt the subject to the conventional names, as the object is practical aid in treating diseases, no matter what they may be called.

Fibræmia is where the fibrin filaments are in excess, in the form of threads, skeins, massive fibers, straight and curled like strings, forming thrombi and emboli. These are in a more exaggerated condition and form than in consumption or rheumatism. Sometimes the fibers look like the scalp when taken from a woman with long tresses of hair.

C. *Gravel of the blood, or crystalline bodies in the blood in rheumatism.* These are numerous and readily recognized. Some of them are as follows: 1. Uric acid and urates of soda. 2. Phosphates. Specially the triple phosphates of lime and soda. 3. Oxalate of lime. 4. Cystine. This is quite common and easily detected. 5. Carbonate of lime, rare. 6. Stelline and stellurin. These occur mostly in granular forms in the serum, but in old cases; where the system is saturated, they are crystalline. 7. Black, brown, aniline blue, bronze, orange, red and yellow pigments in the form of flakes or small masses are common in rheumatic blood, and may be termed gravelly matters that should have been eliminated by the kidneys, bowels or skin, which are the natural outlets for such excretory products.

In fibrous consumption and asthma, and hay fever, these gravelly concretions are found in the sputum, as if the air-passages were made the abnormal channel of their excretion.

Gravel of the urinary tract, the liver and the gall bladder, of the ducts of the salivary gland, of the vaginal mucous membrane, are examples of metastatic excretion of crystalline bodies from the system, produced to great excess, and thrown off by these vicarious channels.

D. *The latent condition of the characteristics of rheumatic blood.* The morphological characteristics peculiar to rheumatic blood exist in a latent condition in persons apparently well; but when they are exposed to cold the blood vessels contract, catch and detain these abnormal elements, and we have a stasis of the blood, which may be active or passive, and manifest

itself in heat, fever, pain, swelling, inflammation or passive congestion, effusion, etc., which make up what is known as an attack of rheumatism. The fever may result from the efforts of nature to get rid of the foreign substances and conditions, just as a householder will become hot in expelling from his premises a thief who is difficult to get rid of; or, to use another simile, the attack of rheumatism is like the explosion of a gun, the charge in the gun is the morbid material of rheumatic blood, and the cold is the pulling of the trigger. The charge may be latent in the gun for years, but is there, with its potential energy, ready to become actual from an exciting cause. Just here comes in the practical suggestion: If those who are in health apparently should be examined and find their blood has the morphology of rheumatism in a latent condition or in the pre-rheumatic state, it is a very good time to treat to remove it. As one can draw off a charge from a gun with ease and safety before the trigger is pulled, so is it with the removal of the pre-rheumatic state.

E. *Thrombosis:* Is where masses of fibrin accrete and consolidate, together or not, the red corpuscles, white corpuscles, crystalline and pigmentary bodies, spores and mycelial filaments of vegetations, one or all.

When one considers that the arterial vessels rapidly narrow into the capillaries, $\frac{1}{3000}$ of an inch in diameter, and that the thrombi are driven with the rapidity of a race-horse by the pulsations of the heart, it is no wonder that these floating thrombi become plugs or emboli in bloodvessels and disturb the circulation. It is a wonder, rather, that the system can stand them so long.

This is G. *Embolism.* When the embolus is made up of spores of mycoderma aceti, vinegar yeast, and is caught in the lung tissue, it develops tubercle, and so also in other parts of the body. (Koch's bacillus is only the baby form of the vegetation of the mycoderma aceti, and has been recognized in this country 20 years or more before Koch discovered it.) So senile gangrene of the extremities is caused by fibrinous clots stopping a bloodvessel.

H. *The pre-embolic state.* As thrombi precede emboli, so they can be detected in the blood before the embolism, simply by the examination of the blood. Thus sudden deaths from embolism, specially from the puerperal state, may be averted by the adoption of treatment which removes the acidity of the blood, and this aid alone renders the microscope an invaluable assistant to physicians who are devoted to their profession and is sufficient to redeem the microscope from the title of accursed, as given it lately by a divine of New York at a public meeting.

Remarks. The relation of the morphology of rheumatic blood and fibræmia to disease of the heart is very close, for it is at once evident that increased obstacles to the free circulation of the blood, by the massive fibrin filaments, the thrombi, the emboli, the adhesive white blood corpuscles, the sticky red corpuscles, the gravel, etc., must make more work for the heart to perform, and thus produce hypertrophy, etc. This is more apparent when one considers that if the capillaries of our bodies could be removed, and joined in one straight line, they would reach more than round our globe. This idea will soon be found elaborated in a work entitled, "Trophopathy in Heart Disease," about to appear.

Again, it is very easy to see how pains in rheumatism can be physically caused by the presence of gravel in the blood, whose sharp angular points must cut the delicate tissues.

"The formation of fibrin or the coagulation of the blood only takes place in the vessels when there occurs a slowing of the current or when there is a change in the parietes of the vessels." [1]

The gentleman who made this statement would not have done it if he had been in the habit of studying morphologically the blood of his rheumatic patients for twenty-two years. The fibrin filaments exist in the blood in health, and the elements referred to in this article have been found in the blood of rheumatics, with regular pulsations, who were apparently in a state of perfect

[1] A Treatise on the Practice of Medicine, by Roberts Bartholow, M.D., LL.D., fifth edition, D. Appleton & Co., 1884, p. 248, lines 38, 39, 40.

health, but who were really in the pre-embolic state. From the rapidity with which these emboli and thrombi disappear from the blood after the treatment, there is reason to believe that many of them are dissolved by natural processes, if there is nerve force enough given for this work.

These remarks would not be made had not Bartholow, in the preface to his fifth edition, loc. cit., stated that his work presumes "to represent the present state of medical knowledge."

ACCUMULATORS AND THEIR MEDICAL USES.

BY ROBERT NEWMAN, M.D.

Synonymous terms of accumulators are storage batteries and secondary batteries, and will be used so in this paper.

These names convey only a vague idea of the nature of these batteries, without really explaining their characteristics. The accumulator is a battery, which first must be charged with electricity by a primary battery, before it can be used, thereby becoming a secondary battery. It is not exactly correct to say that the electricity is stored up; but the fact is, that by changing accumulators, they become reservoirs for electric energy, which can be used at will, and lasts till the electric energy is exhausted. A secondary battery consists of one or a series of accumulators, each accumulator representing one cell.

To make this paper more complete, some terms and electric units used in modern electricity will be explained as adopted at the Electric Congress in Paris, 1881.

Electric Units. A *Volt* is the unit of electro-motor force, the measure for pressure of difference of potential. It is nearly equal to one cell of Daniell's Battery.

The *Ohm* is the unit of resistance, or rate of velocity, the standard of which is a column of pure mercury one square millimeter in cross-section, and 106 centimeters in length, at the temperature of ° C. [An ampere is the unit of current strength or volume; the standard measure of the electric current. An *ampere* is equivalent to the strength furnished by an electro-motive force of one volt, passing through a resistance equal to one ohm ($C. = \frac{R}{E}$)].

A coulomb is the unit of quantity.

It is equal to one unit of current ampere passing in one unit of time (one second); or in other words a current of one ampere in a circuit will produce one coulomb in a second.

A Watt is the unit of energy or force, or equal to a combined volt and ampere.

$$\text{One horse power} = \frac{\text{Amp. x Volt}}{746}$$

A Farad is the unit of capacity. It represents the storage of one coulomb of electricity in a condenser.

A Joule is the unit of heat; it also represents the work done by a watt in a second.

Cell. By a cell we understand the vessel with its contents complete with liquid and elements (or plates), not the receptacle *per se.*

Primary cells, used for Faradic and galvanic batteries, vary very much in their composition; but all have one characteristic when exhausted, the whole or part of the chemicals employed must be renewed, and sometimes the plates also. Types of these are the Daniel, Bunsen, Grove, Leclanche, etc.

Secondary cells are such, which when exhausted, may be revived by simply passing a current through them from a battery of primary cells.

For each cell we have a fluid and plates. Cells proper are generally made of glass or hard rubber. The plates consist of positive and negative elements, made of some suitable substances.

FLUIDS.—The fluids used may be alkaline, acid or neutral, according to the plates employed, and other considerations. In the present storage batteries the fluid consists of diluted sulphuric acid covering the plates to the depth of half an inch above the upper edges of the negatives.

The theory of electric storage is that when water is decomposed by electrolysis the gases are collected in separate receptacles, if the connection with the battery be severed, and the wires lead-

A paper read before the Northwestern Medical and Surgical Society, New York, February 20, 1889.

ing to the gas tubes brought into contact, a current of electricity will flow through them in the reverse order to that of the original current, the gases at the same time recombining to form water. Thereby the electric energy expanded in decomposing the water is stored up in the gases, and recovered when they recombine. Oxygen accumulates at the positive pole and hydrogen at the negative. The oxygen unites with the terminal, if composed of any of the baser metals, and appears in the combined form of an oxide instead of a gas. But experiment proves that electric energy is also stored up in the oxide, when so formed, and may be recovered from it.[1]

As a primitive storage of electricity we may look to the Leyden jar in principle; which, however, differs considerably from the present accumulators; the Leyden jar becomes charged by induction, the secondary battery by chemical action. The Leyden jar, when used, liberates all the electricity contained in it, as one discharge, while in our present accumulators the electricity can be used in quantities to suit our purpose, commenced, stopped, interrupted at will instantaneously, and even the strength of such current can be regulated.

The principle of our present accumulators was discoverd by Planté, 1860. A modification of Planté's system was made by Faure in 1880, whose storage battery was the first exhibition of a practical appliance, which promised to be used for different purposes. At the present time the best cells in use are in reality only improved Faure's cells, and come under three heads: One has plates composed of lead in a spongy or granular state; the second has lead plates, or some alloy of lead, perforated with holes which are filled with lead compounds. The third type has lead and zinc plates. All lead-plate accumulators are based on the principle of Planté's invention, which represents, also, the type of the first class mentioned.

Planté's system is as follows:

Two sets of lead plates prepared with a view of making them porous are rolled into each other; at the start both sets are identical, and only afterwards become positive and negative respectively. They have luggs either cast on them or put on afterwards to project above the level of the electrolyte, so that the plate itself may be completely immersed. A strip of lead is then soldered to the luggs of all the negatives, and the same is done with the positives destined for one cell. The two sets of plates are pushed into one another, so as to form a compact block, positive and negative alternately, every plate being insulated from the next one by some non-conductor, for which India-rubber bands are mostly used; but they remain joined by the lead strips described above. The block of plates is firmly held together and constitutes a section. The two poles of a primary battery are connected with the accumulator, and by a series of charges and discharges with reversible properties the forming takes place. For charging, a battery is used consisting of a series of Daniel's or Bunsen elements. The principle is to form an oxidation at the positive pole, thereby converting the plates into a peroxide of lead and the positive plate will accordingly become brown, while the negative plate will remain gray. The battery is fully charged when gases are formed at the positive pole (brown color) and escape in small bubbles. If a so-charged battery is left to itself without being used it will deteriorate, by a reduction of the peroxide of lead, and it becomes a sulphate of lead, which can be observed by the brown color at the positive pole changing into a yellow. The chief drawback to this type of accumulator is that frequent reversals are necessary to obtain a good storage capacity, and just when that point has been attained, the plates shortly fall to pieces; that is the limit of the accumulator and its end. The objections, therefore, are that such batteries are troublesome, expensive, and too heavy for portability.

The Second Type (lead plates perforated with holes, which are filled with lead compounds) is unquestionably the most useful, and it is those which are most in use at the present day.

Pasted plates are made in many ways, but the object in all is to pro-

[1] Atkinson: The elements of electric lighting.

duce an efficient support of lead for carrying the paste. Several companies prepare plates which are almost identical. They consist of lead, or an alloy of lead, cast in plates full of small, square holes, pyramidal in form, with their bases on the surface of a plate minute-glass shape in section, with a lugg to attach the connecting strip of lead, when built up in sections. Now they use an alloy of lead to obtain a better plate or grid, as it is called, the alloy being far stronger than the lead. The plates intended for positives are pasted with red lead, or minium, and sulphuric acid; the negatives with yellow lead, or litharge, and sulphuric acid; the latter is used to make the paste more coherent.

They are now built up in sections by soldering the luggs of a number of positives to a strip of lead. The negatives are treated in the same way. These two sets of plates are pushed into one another, so that positive and negative alternate, and every plate is insulated from the next one. A plate of thick glass is then placed at each end of the section, and two stout rubber bands are made to encircle the whole, one near the top, and one near the bottom, of the section, horizontally. The number of negative plates always exceeds the positives by one, so that a negative is seen at each end; of the remaining plates the edges only are in sight, the plates being about a quarter of an inch apart, positive and negative alternately. There is no connection between the positives except through the leaden strips at the end of the luggs, this being left long enough to join to the next cell; the ends of the luggs with the strip always remain above the liquid of the cell. These remarks also apply to the negatives. The section is now ready for forming. In the foregoing description of the manufacture of the plates I have followed mostly Sir David Salomon's management of accumulators.

Many experiments have been made to improve the Planté's system, and we find accumulators exhibited by the following scientists: Méritens, Pezzers, Sellon & Volckmann, Changy, Kabath, Faure, and Schulze.

Next come the accumulators with only one lead plate by Arsonvals, Boettcher, Sutton; and last, the experiments of accumulators without lead plates by Houston & Thompson, H. Aron, Varley & Dumoncel. The latter belong to the third type mentioned above.

All support plates belonging to the first type were founded on the principle of the oxidation of the positive plates or their conversion into peroxide, so that they soon fell to pieces, which is the objection. The type of the second class differs from the first in that the plates are already prepared in its make, so that the cell is ready for immediate use. Our present useful accumulators belong to this class, and are all modifications and improvements of the Faure system.

The importance of a reliable accumulator will be appreciated best when we consider the many ways in which it can be utilized in all practical appliances of electricity. It has already been extensively used for the following purposes:

1. Electric lighting of buildings.
2. Lighting of railway trains, street cars, and omnibuses.
3. The traction of all vehicles, more especially street cars.
4. The propulsion of yachts, launches and pleasure boats.
5. The lighting of steamers.
6. Running motors of all kinds.
7. Telegraphy, signaling.
8. Medical uses.
9. Electro-plating.
10. General laboratory, etc.

Each of these uses plays a very important part in our domestic and public economy; but most interesting is "Electric Lighting." It is here that its functions as a reservoir of energy become utilized to the greatest advantage; and after a retrospect of not so many years, in which the light for houses and our studies was a tallow candle, we can appreciate more fully the progress of an enlightened community, which has given us electric light as a comfort and a luxury. While this subject is so very interesting, its pursuit is not within the scope of this paper, and we must restrict the further consideration of accumulators to "MEDICAL USES;" which are:

1. Galvano cautery.

2. Incandescent light for general examination and especial illumination of cavities of the body.

3. Motors, and operating induction coils.

Among the many advantages of the accumulators are:

A. In regard to Light.

1. The greater superiority and steadiness of the light.

2. It does not heat the instruments, and its surroundings.

3. The light is concentrated and does not flicker or smoke.

4. The freedom from smoke and deleterious gases.

B. In regard to Cautery.

5. The cleanliness in contrast with the acid plunge batteries, which often have ruined clothes, carpets and furniture.

6. The battery is always ready for use.

7. It gives a uniform strength of current, from beginning till the energy of electricity is completely exhausted; thereby a platinum burner can be kept at the same intensity of heat during any operation; whereas the primary batteries polarized and the heat diminished during an operation.

8. The amount of heat desired can be regulated by the rheostat.

9. The accummulators are more portable than a battery filled with acid fluid.

10. It saves time and work, being always ready; there is no necessity of making fluid, filling, refilling and cleaning the elements.

DISADVANTAGES.

1. The constant care and use.

2. If out of order the cell must be renewed; it cannot be repaired.

These may be considered by some drawbacks; just as well, as it needs to be an expert to handle the instruments. The accumulators must be used often and it must be charged and discharged at certain intervals. One or a few days intervals will not make much difference, but if a charged cell will be left standing without being used, it may be found entirely useless after a certain time; just as well, as if the cell is left exhausted of energy and not charged again. Therefore the general practitioner, who perhaps uses a galvanic-cautery once in a month will not find the accumulator practical; but the expert and specialist will not complain; on the contrary, will find that he saves time and work. I use the accumulators almost daily, and find the care needed not burdensome, on the contrary, pleasant, and saving time and labor in comparison with the old method. All these disadvantages are reduced to a minimum by constant improvements which inventors make.

PRINCIPAL ACCUMULATORS FOR MEDICAL USE.

In America several types of batteries have appeared, all having as foundation the Planté's system, the plates of all are a modification of Faure, all plates are in cells, filled partially with diluted sulphuric acid. The difference consists in preparing the plates, in which the principal point and secret is to prepare a suitable alloy of lead, instead of lead itself.

Here in New York we have three systems in use, all protected by letters patent, viz.: The Gibson's, the Julien, and the Black Giant. The latter two will be considered here, and introduced to your special attention. I have used them side by side for comparison for some time past, and both have given so much satisfaction that I feel justified in recommending both and showing them to you here in operation.

THE JULIEN ACCUMULATOR

Is manufactured by a powerful and enterprising company, called "The Julien Electric Company," doing business on a very large scale; having the patronage of the Vanderbilt, Pennsylvania and other railroads, and also using their batteries as motors for railroad cars. The inventor is Edmond Julien, a Belgian engineer. His specific claim is that the grids or supporting plates are made of a special metallic composition which prevents oxidation and buckling, giving the battery much greater durability than can be obtained by the use of lead grids. The nature of this composition is a business secret, but some knowing ones say it consists of 94.5 lead, 4.2 antimony, and 1.3 mercury. In commercial circles it is known as "L'Electrique." The company calls it a new

principle, that of an *inoxidizable support plate.* The Julien accumulator is guaranteed to render efficient service for a period of at least two years, and the company considers it the most durable battery. An instrument of this make I have used for some time, and it has given me perfect satisfaction. It consists of three cells in one case and can be used for cautery as well as for electric light. It is charged by a series of ten Watson cells. The Watson cell is an improved gravity cell, each six by eight inches in size. This primary battery is stationary below in the basement, and two wires running up, representing the positive and negative pole, respectively, are connected with the same poles of the accumulator, when the latter wants to be charged. As a rule the battery is charged during one night. The instrument is also provided with a rheostat, by which the strength of the current may be increased or diminished or regulated for the work to be done. One charge will hold a two-candle power lamp in a state of incandescence for ten hours. I believe that this battery has sufficient power to do all galvanic cautery work for surgical purposes, while the use of the rheostat will regulate and diminish the power to such a degree that the smallest burner can be applied without the risk of melting the platinum. I have used this accumulator for my galvanic cautery sound, also for heavy work. If the operator is attentive and uses the rheostat with care, he will never melt the platinum and ruin his instrument, while he can hold the same heat for any length of time without any polarization. This and other advantages over the primary cautery battery have been mentioned above. Another additional advantage is that this battery can be arranged for quantity as well as for intensity, by plugs inserted in the hole you see here. If the battery is used in three consecutive cells at once, heat in the burner used immediately gives a flash to its fullest extent, which is important for some uses, particularly in the application to the prostate with my galvano-cautery sound; this is the intensity or volt current. On the other hand if the three cells are converted into one cell, the heat comes gradually up to its fullest power, where it will remain during an operation. In the latter case the battery is set for quantity. To a certain extent this battery is portable, that means, one strong man can carry it to the place of operation, if he holds it "this side up." Its weight is about forty pounds. It cannot be laid on its side or upset, in which case the fluid would run out and injure the upper part of the cells.

THE BLACK GIANT ELECTRIC ACCUMULATOR.

Is the invention of Dr. Flick of Brooklyn, and has come more recently to the notice of the public. Each cell is a sealed receptacle, has 8 plates, and is encased in an exterior hard rubber. On top is a small hole in which a $\frac{1}{8}$ inch high tube is placed, which has the function as a ventilator to allow the free escape of gases. This opening can be closed by any kind of plug or cork, which prevents any leakage during a transportation. In the middle of the top are two projecting arms, nickel-plated, which are the two poles, with binding posts used for storing as well as for discharging. The cell is round, $8\frac{1}{2}$ inches high, 4 inches in diameter, with a circumference of 13 inches, and weighs 10 pounds. It can be used single or in combination. A battery of two such cells is powerful and sufficient for almost any surgical galvano-cautery operation.

From trials made, I believe that two cells give nearly as much heat as three cells of the Julien accumulator. One cell, when fully charged, is equal to $2\frac{1}{2}$ volts, and can be discharged at the rate of from 5 to 20 amperes, according to the use desired, and has a capacity of at least 30 ampere hours.

This battery has also a rheostat attached.

The plates are made of an alloy of lead, the composition of which is also the secret of the inventor. It is a very neat battery and has given me entire satisfaction. A particular advantage, which would make it useful to the general practitioner, is that in the Black Giant accumulator no local action takes place, and there is no loss of power when standing unused; and it may be allowed to stand many months empty and will readily charge again. How

long it will retain its power I cannot say; but from experiments made myself I know that this accumulator was discharged and idle for nearly three months without losing anything in its power, was charged readily again and to-day is just as good as ever in its start. These accumulators are now manufactured by Meyrowitz Bros., 23d Street and 4th Avenue, New York, and are also for sale at B. Blum & Co., 5 and 7 Dey Street, New York, and other dealers.

The inventor claims that the Black Giant excels all other accumulators in the following points:

1. Its electrodes or plates are non-corrosive and consequently indestructible.

2. The composition of its plates and its method of manufacture prevent local action and consequent loss of capacity to receive, retain and develop a high tension and a great quantity of current.

3. It is durable, reliable and constant. The plates do not enter into the chemical action involved in the operation of the cell, but remain non-disintegrable conductors.

4. Its capacity is greater in proportion to weight of cell than that of any other.

5. Its mechanical construction and appearance is superior to any other. The cell does not leak, the terminals or plates are thoroughly protected from corrosion, and consequently permanent.

6. The cells in transportation can be placed in any position or upset without being injured or leaking.

Both instruments, Julien as well as the Black Giant, are good practical accumulators which I can recommend. Both claim their instruments are the best and most durable. Progress is constantly made, and while we discuss here the merits of each, an improvement may greet us on awakening in the morning

In determining the degree of intensity of a current required to heat a platinum wire to a point sufficiently hot for the purposes of operation with galvano-cautery, it is impossible to say how many degrees Fahrenheit are necessary, obviously, since for some operations a wire heated to a dark red is sufficient, while, for others, the wire must be brought to a white heat, yet not carried to such a degree as to melt the wire. The intensity of an electric current being measured only by electric units, it is but the sign of dense ignorance of electric laws to ask how many degrees Fahrenheit are necessary to produce a given result in electricity, because the thermometer is not a measure of electric force.

All operations can be made with the accumulators where galvano-cautery can be used, with platinum burners or with the galvano-cautery ecraseur with platinum wire. For most operations of the latter kind a No. 22 wire is used, while a No. 20 or 24 may be indicated, according to the work to be done.

II. INCANDESCENT LIGHTING

Is one of the most interesting applications of the storage battery. It is here that its functions as a reservoir of energy become utilized to the greatest advantage. Electric illumination is carried on upon a large scale by dynamo, accumulator or both combined. Lights supplied direct from a dynamo are unsteady, uncertain and flickering, and the wires of such a current are dangerous to life by its large electro-motive force. A type of this is the Brush system, which flickering, unsteady lights can be observed in our streets, and the newspapers report many cases of death by loose wires coming in contact with a human body. On the other hand, the light furnished by accumulators is perfectly steady, and the current can be regulated with great certainty, so that we are enabled to use it for medical purposes. The Edison light is the type of this, which is used for illuminating our houses, and has 100 to 110 volts. The storage battery is, in fact, an equalizer and regulator to the dynamo, besides acting as a reservoir of accident, which is liable to happen with the best machinery. It is evident that in incandescent lighting for medical instruments, we can use the accumulator only.

Lighting apparatus for surgical instruments do not require so much room, and an electric lamp can be brought into nearer proximity with the parts of a human body under examination than any other lamp, and it also permits the eye of the operator to get nearer the

point of observation, by which means a closer and more thorough examination becomes possible By the aid of lenses, pictures can easily be enlarged, and finally very fine photographs of the cavities of the human body can be obtained. H. Fenwick, in London, has improved now his apparatus to take photographs of the interior of the bladder. The best instruments for illuminating the cavities of the body by incandescent light are now made by J. Leiter, of Vienna. We find among his instruments the following:

Lamp for the forehead.

The lamp used for these instruments gives a light equal to from ten to twenty standard candles. It can be removed from its holder and connected with a handle, so as to be used as a hand lamp. It never becomes heated.

Laryngoscope; can also be used for dental operations.

Rhinoscope.

Tongue-depressor.

Gastroscope, after Mikulicz-Leiter, to examine the stomach.

Speculum, with incandescent lamp.

The lamp is carried on a spring, which can be clamped to any speculum.

Leiter's panelectroscope, for male and female urinary organs, ear, nose, œsophagus, rectum and vagina, is a universal lighting apparatus. The same apparatus will illuminate either of the organs mentioned, if an appropriate tube for the purpose is attached to the end of the instrument. As you see here, on removing the metal plate and screwing on a mirror in its place, we have a laryngoscope, and in turning the same, it can be used for lighting up the nasal cavity. The panelectroscope differs from other endoscopic instruments in the mirror being placed behind the lamp, and its concavity permitting of concentration of the rays of light coming from the lamp upon the object. The operator looks over the upper edge of the mirror in through the respective tube. The lamp stands here free, not encased or obstructed above, which has the advantage that the instrument will not be heated, even if the lamp is kept burning for hours.

The most important novelty is Leiter's improved *Cystoscope*. This excels all former apparatus by superior workmanship and finish, has a far greater illuminative power, can be used in a bladder full of fluid, will burn steadily a long time and in every way gives the greatest security. Two instruments are made, one for examining the posterior part, and the other the anterior surface of the bladder, the light being respectively on the concavity and convexity of the instrument. By aid of the cystoscope a surface of the interior of the bladder of 100 to 200 millimeters can be very distinctly seen at once.

The size of the tube is No. 22 French; but it is also made of a calibre of No. 40, which is very useful in the examination of the female bladder.

Cystoscopes must not be left burning for any length of time in the open air, as in that case they become heated. If, however, that part of the apparatus containing the lamp is surrounded by water, the cystoscope may be kept burning for hours before it becomes perceptibly heated. To be examined with such instruments, the bladder always ought to contain 5 to 8 ounces clear water.

I have here a phantom bladder filled with six ounces water, in which I have placed some objects which are for your inspection with the cystoscope, which is now lighted up with the accumulator. We need 3 to 4 cells to produce a brilliant light, which is regulated with the rheostat, according to the resistance of the lamp. The latter is placed near the curve of the instrument, by which the light is introduced directly into the bladder and not by reflection through mirrors, as was the case with all former instruments. Leiter furnishes a plunge battery with acid and bichromate of potassa for the generation of the electric current; but our demonstration here will prove that the accumulators do the work perfectly, and once adjusted give a steady light uninterruptedly for hours, while a plunge battery, with acids, necessarily will polarize and must constantly be readjusted. There is no question that the incandescent light, including the Mignon lamp, is an American invention. Yet we are unable to procure any incandescent lamp made in this country that is of any practical value, though many are made here, yet all are defective in one way

or another, some bursting without warning and without apparent cause save defective workmanship, and all fail to give light sufficient for the required purpose.

It has fallen to the hands of skilful instrument makers of Europe to furnish us with a lamp yielding the best light with a greater resistance, thereby making the lamp more durable and less liable to breakage.

Among good lamps are some manufactured by J. Leiter in Vienna, P. Hartwig of Berlin and K. Schall of London.

Leiter furnishes with his cystoscope a longer tube, for deeper inspection; but as he thereby alters the arrangement of the lenses, he also disturbs the focus so that the point to be examined is not shown as distinctly as in the regular tube.

We have also in the market Nitze's cystoscope, which is nearly identical with Leiter's. Yet Nitze's has this advantage over Leiter's that the instrument, while in the bladder, may be turned around so as to make examination of posterior and anterior surfaces, while with Leiter's a different instrument must be used for each examination. Notwithstanding this disadvantage, many prefer Leiter's instrument, myself being among those.

The cystoscope possesses nearly the same disadvantage that existed in Desormeaux, endoscope, viz.: an abrupt curve which is sometimes difficult for the operator and painful for the patient in introducing it into the bladder. Could the fenestrum be arranged in a gradual curve like the steel sound much disadvantage would be overcome.

The cystoscope in the present condition can only be used in examination and for diagnosis.

Could it be modified so as to enable the physician to make a diagnosis and operate at the same time, the instrument would be the ideal of perfection. We sincerely hope that this instrument may shortly be brought to this state of perfection.

New York, 68 West 36th Street.

The Mexicans who pronounce American lard impure and unfit for use don't know what they are talking about. American lard is all right—it is only the alleged American lard that needs reforming.—*Philadelphia Press.*

TRANSLATIONS.

LA MISSION DU DR. STERNBERG AU BRESIL.

Refutation du rapport public par un médecin dans le *Medical News* de Philadelphie, le 28 Avril, 1887.

PAR LE DR. DOMINGOS FREIRE.

DR. FREIRE at the outset of his monograph states that if Dr. Sternberg's instruction were directed to the special study of his methods, the latter's manner of proceeding, by forming an alliance with a physician known to be his personal enemy, was certainly not calculated to show the impartiality befitting a man of scientific attainments, much less one having received a mission from the American Government. After quoting the following from Dr. Sternberg: "I have to consider the possibility of absorption, by the respiratory tract of a toxic volatile agent, or by means of the skin of a venomous ptomaine formed upon the surface of the body by a specific micro-organism, which organism does not itself penetrate into the interior," our author expresses his surprise as to the ignorance exhibited regarding the nature of a ptomaine. It is well-known, he continues, that during the period of invasion of yellow fever the skin is hot and dry, whereas if there was a ptomaine it ought to be moist and clammy. Again, the reaction of the perspiration in this malady is acid and very acid, and if a ptomaine were present the reaction would be alkaline. The absorption by the skin spoken of is regarded as very questionable, as if it occurs at all it is so feeble as to be denied by many physicians.

The conclusion arrived at by Sternberg, that up to the present day researches made have failed to prove the constant presence of a micro-organism in the blood and tissues of persons attacked by yellow fever, and secondly, that Dr. Freire's micro-organism is not found, as he states, in typical cases of the disease in question, are treated as statements offered without proof; for the reason that he contents himself with saying that in future more exact methods should be employed, "whereas in reality," continues Dr. Freire, "I have

never given Dr. Sternberg the pleasure of making my researches in his presence." He confesses besides that it would be highly desirable that several culture mediums should be inoculated with materials taken with all necessary precautions from different organs, and at as short a time as possible previous to death. In view of the fact that Dr. Sternberg has denied the truth of the existence of said organism in the blood, it is interesting to note that he admits that it is necessary to verify this point, for the reason that he confesses never having performed a single autopsy in order to convince himself of that which he states to be untrue. My conclusions, therefore, remain the same. I continue to affirm that in the viscera of those having died of yellow fever, as well as in the blood and also in the black vomit (*vomito negro*), there exists a micrococcus that can be followed out in all its developments.

"Further on, Dr. Sternberg states that at Havana in 1879, in Brazil and in Mexico last year, he has examined numerous sections of liver and kidney in typical cases of this malady, without having found the 'cryptocoque xanthogenique.' But where do these specimens come from, if no autopsy has been made? I will explain to the reader. They were given him by his friend, Aranjo Goes, and in his sections he finds not my cryptococcus, but the micrococcus of Bates. Now as cryptococcus and micrococcus are synonymous terms, according to Cauret, Cazin, Pizarro and other botanists, and as the micrococcus described by Bates has the same morphology as the one described by me, it follows that Dr. Sternberg found my xanthogenic cryptococcus, thereby confirming my observations, according to the mathematical axiom, that two things equal to a third are equal to each other."

The reader is here referred to extracts from Cornil and others, as well as to different plates bearing upon the point at issue. Dr. Freire goes on to show that the reason Bates could not specify the nature of the micro-organisms was due to the fact that his specimens were not fresh, having been transported from Brazil in alcohol, and that his (Freire's) observations go to prove that, once dead, the micrococcus rapidly loses shape, unless preserved in balsam of Canada. The question of having mistaken blood corpuscles and debris for the organisms is passed over as unworthy of notice, and in return it is stated that it is more probable that Dr. Sternberg has allowed foreign germs to enter his cultures, which he brought with him to Baltimore. It is claimed (contrary to Dr. Sternberg's views) that the multiplication of micrococci by division is not the only method of their increase. The fact is also pointed out that the cultures remaining in his laboratory, after his departure for Paris, were the ones which he had purposely rejected. Dr. Freire repeats his assertion that the characteristic black vomit is due not to the presence of altered blood in the stomach, but to a pigment produced by this micro-organism. This observation, first made in 1880, has since been corroborated by several observers; among others, MM. Rebourgeon, Issartier and Artigalas.

Our author continues:

"This pigment does not manifest itself in cultures of agar-agar, which happen to be the only kind I have seen Dr. Sternberg make; besides, his methods are open to criticism, for the reason that he always seals his tube with the lamp; whereas it is necessary for the air to penetrate the tube (filtered through sterilized cotton) to allow for the development of the microbe. This is quite a common fact in biology; as, for example, if we remove the oxygen from the bacterium aceti, instead of obtaining vinegar, we will have something entirely different. Each micro-organism requires special conditions for its development; and that of yellow fever, when primarily cultivated on agar, requires many transplantations on gelatin to produce considerable quantities of this black pigment. So that I am compelled to imagine that Dr. Sternberg must have taken to the United States some form other than the xanthogenic micrococcus.

"As regards the statement of Dr. Sternberg that my experiments on animals, conducted in his presence, failed entirely in demonstrating that the micrococcus brought from Paris possessed any special power, I must sim-

ply deny the fact in its entirety. When on my return from Paris I found Dr. Sternberg in my laboratory, I frankly acknowledged that he had come to Brazil at a bad time, as no epidemic was then prevailing; and that, consequently, it would be necessary to revive the virulence of the microbe which I had cultivated in Paris after having brought it from Rio, and subsequently to diminish it to show him the preventive effects on animals. These experiments were conducted during the limited space of time left at my disposal before Dr. Sternberg's departure (twenty days), and of four guinea pigs which were finally inoculated, four deaths followed respectively in five, six, nine and eleven hours. Their autopsy revealed the presence of micrococci in the different organs, principally in the liver and kidneys. I then offered to show Dr. Sternberg the successive increase or diminution of virulence, so as to exhibit the practicability of using the same as a method of vaccination; but received from the doctor the answer that he would be unable to continue the experiments on account of his approaching departure in a few days, and that he would have to content himself with inoculating different guinea-pigs with a culture which I should judge to be attenuated. This was accordingly done, and with his own hands he performed the inoculation on three animals. None of these three died, but at successive examinations remained in perfect health. My intention was to show to the doctor that these vaccinated animals would resist the inoculation of the pure virus, and if I did not do so it was not my fault, but on account of thehaste to leave exhibited by Dr. Sternberg.

"It is a well-known fact that the xanthogenic micrococcus propagates itself by spores, and it has been shown that these spores are well capable of resisting high temperatures. Consequently, why is Dr. Sternberg astonished that a guinea-pig inoculated with one drachm of virulent blood containing the yellow fever germ should succumb in six days, especially when this blood has been heated to the boiling point for only a few minutes? M. Sormani, of the University of Pavia, has proven that milk containing the bacilli of phthisis, heated to ebullition, can still communicate phthisis to guinea-pigs. Besides which, the ptomaines resulting are not decomposed by heat, and will conserve their power indefinitely, as shown by M. Gamaleia in cholera and M. Chantemesse in typhoid fever. The statement made that the microbe of yellow fever is without movement is accountable by the reason that Dr. Sternberg has observed the micrococcus only in a solid medium, which of course goes to prevent the same."

In concluding his arguments, our author only regrets that he did not call upon a number of his colleagues to be present in order to witness these experiments.

Under the head of Preventive Inoculations, we are treated to a series of statistics, from which we extract the following mortality lists for the years 1884, 1885 and 1886:

Died in 1884:
Foreigners not vaccinated, 577.
" vaccinated, 7.
Brazilians not vaccinated, 73.
" vaccinated, 0.

Vaccinated the same year:
Foreigners, 307.
Brazilians, 111.

Of an estimated number of 121 foreigners that were attacked by the malady, only seven deaths occurred (5.7 per cent.), instead of 42, which would represent the average mortality of 35.9. One hundred and eleven deaths would represent the average mortality upon the Brazilian; whereas we have no deaths.

Died in 1885:
Foreigners not vaccinated, 200.
" vaccinated, 0.
Brazilians not vaccinated, 78.
" vaccinated, 0.
Vaccinated the same year:
Foreigners, 865.
Brazilians, 2186.
Mortality of epidemic, 20 per cent.

Died in 1886:
Foreigners not vaccinated, 1079.
" vaccinated, 5.
Brazilians not vaccinated, 313.
" vaccinated, 3.

Vaccinated the same year:
Foreigners, 710.
Brazilians, 2763.
Mortality of epidemic, 38 per cent.

The last portion of our monograph treats principally of the morale of the question; but space does not permit us to continue the subject any further.

THE THERAPEUTIC ACTION OF SULPHONAL,

By M. Le Professor H. Mairet, of Montpellier.[1]

In view of the results obtained on animals and on man in a healthy state, sulphonal has been placed in therapeutics as a hypnotic. It is almost exclusively for this purpose that it has been employed heretofore; but some authors have used it as a sedative and analgesic.

Dr. Otto[2] reports having obtained some good results with it as a sedative, in the prolonged agitations of the insane.

Dr. Cros[3] de Lamalon has given it in doses of from one gramme in the pains of tabes; but the effects produced have been less marked than those of antipyrine, although as a hypnotic he has had some good results from it.

Again, Drs. Wilson and Hutchinson, of Philadelphia, have procured by doses of 20 grains a deep sleep lasting for 6 hours in a woman suffering from violent headaches. These authors have also reported that a like dose given at the beginning of a sea voyage prevented sea-sickness.

But this sedative and analgesic action has been contested .by various authors, the sedative action by Salgo[4] and Mathiès.[5]

I have used in the cases of many restless patients, fractional doses of sulphonal, to diminish restlessness. I have obtained a certain result, but the diminution of the restlessness was not due to a true sedation; it was due to a condition of weakness with intellectual hebetude, which could not be prolonged without danger to the patient. Although further researches may develop the sedative uses of the drug, the therapeutic interest now centres upon its employment as a hypnotic. It is from this point of view only that we will study it.

Before indicating the results which have been obtained by myself and others, some words must be said concerning the posology and the pharmacology. Sulphonal is insoluble; it is then necessary to administer it in bulk, but owing to absence of odor and taste this is easy. It is pulverized so finely that the patient can take it in any vehicle, even in water. Many recommend a warm drink; warm water facilitating the solubility of sulphonal. Others recommend a mildly alcoholic drink, alcohol also favoring its solubility. For ourselves, we have given it in sweetmeats, and generally it has been taken readily, those only objecting to it who, by reason of their psychic state, will refuse all alimentation. Many physicians administer sulphonal at the evening meal, mixed with the food. Kast, however, prefers to give it after the repast, to avoid an accumulation which might produce tardy and unexpected effects.

We have always given it about two hours after the repast, and in a single dose.

The tardy action of sulphonal, which we have formerly shown, shows that this substance may be given a long time before the retiring, although it is necessary to remember that the same experience shows that if, after the first dose, the effects of sulphonal are slow to show themselves, the second or third may be different.

These views established, let us see the results to which the authorities have arrived.

In the hands of Kast sulphonal has produced the best results in those cases of insomnia due to causes of the most diverse nature, affections acute and chronic, paralysis agitans, phthisis, mitral insufficiency; but particularly in nervous and febrile insomnia. Kast considers it as not a narcotic, but as a

[1 From the advance sheets furnished exclusively to the *Philadelphia Medical Times.*]

[2 Otto. Société Psychiatrique de Berlin, 20th Juillet, 1888.

[3 Bull. de Ther., 30 Nov., 1888, p. 474, 475.

[4 Salgo, Wiener Med. Wochens, 1888, No. 2.

[5 Mathiès, Centrablatt fur Klin. Med., October, 1888.

hypnotic; whose action manifests itself principally when there is already an inclination to sleep, or where the periodic need of sleep is already felt.

The least dose necessary to produce sleep is 2 grammes, but with many patients a gramme has been sufficient.

In a lapse of time varying from ½ to 1 hour comes a sleep profound and calm, which lasts from 5 to 8 hours, and on awakening the patients feel no unpleasant sensation. In this dose, as shown by physiological researches, sulphonal produces no ill effect on the system; the respiration and the circulation are unimpaired.

Eight days after Kast, and in the same journal, Rabbas,[1] physician of the insane asylum at Marbourgh, gives an account of the results he obtained from sulphonal, employed as a hypnotic in 27 patients, affected with various forms of mental aberrations, and in order to give a better account of the value of this medicine, Rabbas uses it comparatively with other hypnotics, paraldehyde, hydrate of amyline and chloral.

In 22 cases out of the 27 Rabbas has obtained a complete success, and that even with those cases accustomed to narcotics. The sleep produced is absolutely normal. It comes generally in from ½ to 2 hours after administration, lasts without interruption from 6 to 8 hours, and sometimes is prolonged during a part of the morning.

In a dose of from 2 to 3 grammes, sulphonal has an efficacy more certain than that of hydrate of amyline, or of paraldehyde; even administered in larger doses, and by the absence of odor or smell is better borne than these other remedies. It excels even chloral; if this latter causes sleep more rapidly, the sleep is of longer duration than that produced by sulphonal, which has besides the great advantage of producducing no bad after-effect upon any organ, particularly upon the heart; which is not the case with chloral, whose employment is always to be questioned on account of the depressing action upon this last organ.

Oestreicher has administered sulphonal to fifty patients suffering with insomnia from various causes, particularly morphinomaniacs. The results which have been obtained confirm those of Kast and Rabbas.

Like these authors, he has found sulphonal an excellent hypnotic, without disagreeable phenomena, and whose lack of taste gives it an advantage over amyline and paraldehyde. Perhaps it is not always absolutely sure in its action, but usually this action is equal to that of chloral in that it is free from danger in affections of the heart. Only according to Oestreicher the dose of sulphonal necessary to produce sleep is larger than Kast has mentioned; it is necessary to give from two to three grammes once only. He has obtained sleep with 1 gr. 50.

Sulphonal is then a powerful hypnotic, and one which, in mental alienation particularly, is called on to play an important role. It acts in the insomnia due to functional affections as well as in those due to lesions of the nervous system. It acts also where the restlessness is very great, and in cases where all other hypnotics have failed. But to avoid the secondary effects which it produces and which forbid its long-continued use, it is necessary to administer it in a certain manner. It is necessary to give it only for a day or two in the large doses which are needed to produce sleep during the first days, then to diminish the dose considerably.

The importance of the results we have obtained in proceeding in the manner indicated renders it necessary to enter into some considerations of this method.

1. It is necessary to give sulphonal in large doses only for a day or two. The reasons for this are very easily understood, since the secondary effects of the drug generally show themselves the third day, or, at least, are of no great importance until that time.

But what is to be understood as a large dose? In certain cases a dose of from two to three grammes is as large as in other cases a dose of four or five grammes. That depends on two causes: the degree of resistance in the patient and the intensity of the restlessness.

When the degree of resistance is feeble and the restlessness is slight,

[1] Rabbas, Berlin, Klin. Wochenschrift, April 23, 1888.

three grammes, and even two grammes, of sulphonal can be considered as a large dose. When, on the contrary, the subject is vigorous and the restlessness marked, these doses are feeble and it is necessary to increase to four, five, or even six grammes.

2. It is advisable then to diminish the doses. In my observation I have found that no matter what the primary dose was, it is best to reduce it to one gramme. This last dose has not been fixed by chance; a dose of two grammes is too large, because its action, added to the first dose, produces still some secondary effect.

3. The dose of one gramme can cause sleep during a number of days, but its effects vary according to the case. According to one it has produced sleep for nine consecutive days; according to another, for six days; according to a third its action has become insufficient in about four days; and by other authorities in three. In the great majority of cases, but not in all, this variability of action is explained by the intensity of the agitation.

Perhaps it may be thought the same results might be obtained by discontinuing the medicine during a certain number of days after the administration of the large doses. This will be, in my opinion, an error, since experience shows that the favorable effects of sulphonal are lost after a day or two.

At the moment one becomes accustomed to the action of sulphonal, it is only necessary to return to the first dose and sleep will return. This proves, it seems to me, that if there is a tolerance of sulphonal, it must be slight, since there is no more need of increasing the dose the second or third time than the first.

A NEW SYMPTOM OF PERICARDITIS.

Dr. E. Pins, speaks of a new symptom of pericarditis in the following manner:

By percussion of the patient in a sitting position, on the left back thoracic wall, one will not seldom find, from the angle of the scapula downwards, the percussion sound dull, tympanitic or wholly hollow. This hollow percussion sound extends downwards direct into the dulness of the spleen, and extends to the side of the axillary line, from where it changes either into the full percussion sound of the lung or in the dulness of the heart.

The percussion dulness is best heard over an area as large as a dollar, which extends about three fingers' breadth from the lower angle of the scapula; below, about two fingers' breadth from the periphery of the lower lung, and to the right by the spine of the vertebra.

On auscultation one finds, at the point where the percussion dulness is the greatest, marked bronchial breathing, the vocal fremitus increased, and in the centre of the dulness plain bronchophony.

No friction sound can be detected in the region of dulness.

If you let the patient bend over to the front and examination is made again after a few minutes, you will find that the above mentioned percussion sounds have changed considerably; the dulness does not reach up to the angle of the scapula; one finds instead, at the point of the former dulness, about three fingers breadth below the scapula, full percussion sound; at the point of the former absolute dulness, the percussion sound is now tympanitic, the bronchial breathing is wholly or partially disappeared, instead of which one will hear uncertain breathing.

The same change in percussion and auscultation, although less accurate, takes place, if one puts the patient on his left side. The changes in percussion and auscultation are very characteristic, in the knee-elbow position of the patient, if the dyspnœa will allow it. After the patient has been for some minutes in this position, the dulness, up to a small streak, at the periphery of the lung below, will have nearly all disappeared; at the point or place where formerly bronchial breathing was heard, crackling sounds will be heard, which, however, after a few respirations, disappear and a normal vesicular breathing takes place.

This phenomenon, after the pericarditis has existed for some days, is not demonstrable; long before the disappearance of the other symptoms of pericarditis. The cessation of the same occurs with the improvement in the subjective symptoms.

If the pericarditis take an acute course one can recognize these phenomena for three to six days; though, if the disease takes a protracted course, they can be longer demonstrated. These phenomena are almost exclusively seen in young individuals of slender build with small antero-posteriorly or flat thorax, and where the other phenomena of pericarditis are clearly shown.

He explains these phenomena in the following manner: the fluid in the pericardium pushes the heart backwards. This, as well, as the pericardial fluid press, in the reclined position of the patient, on the left lower lobe of the lung, so that all the air is expelled; that part of the lung on which the heart rests is the most compressed.

Therefore the relative flatness on the lower left side in large expansion, and a small absolute flatness in the centre of the first, with the consecutive sound phenomena, bronchial breathing and bronchophony, are explained.

By alteration in the position of the patient the pressure on the lung will be less, and air gains entrance again in some parts, and the sound in the former region of dulness will be fuller. Again in the upper, the entrance of air in the formerly collapsed alveoli causes a crepitus in the same; therefore the first inspirations are found to be accompanied by crackling sounds, which, however, soon disappear as soon as the alveoli are permanently opened. The more the patient bends forward, and the more the compressed lung is released, as in the knee-elbow position, the more prominent will be the difference in auscultation and percussion.

The symptoms are nearly alike, by a physical examination, in pneumonia and pleurisy, though here we have the characteristic initial chill, the sputum and the rattling sound, which are absent in pericarditis; against pleurisy is the exquisite bronchial breathing, the increased fremitus, and absence of friction sounds.

But to exclude with accuracy the above two diseases, note the change in physical examination which takes place on altering the position of the patient.

TREATMENT OF DIPHTHERIA.

Dr. von Lichterman treated over 300 cases of diphtheria in the following manner, with very good results:

He took the largest room in the house of the patient and disinfected it with chloride of lime; then, after an hour, ventilated it and put the patient in.

The treatment begins with a footbath of a temperature of 86°, with two tablespoonfuls of mustard flour. After the bath the patient is wrapped in a woolen blanket, so he gets in a good sweat for two or three hours; footbath is to be repeated every evening. The local treatment consists: (1.) in swabbing the pharynx with a solution of salicylate of sodium in glycerine (1.0 in 2.0) four times daily; (2.) gargle with a watery solution of chlorate of potash (6 in 180) every half hour. Internally he gives two mixtures. The one consists of:

℞ Potassii chloratis.....gr. xlv.
Aquæ destillatæ.....℥ vss.
Syrupi.....℥ j.

M. Sig. ℥ j every hour for child under two years; ℥ ij for child above two years.

The second consists of:

℞ Acidi hydrochlorici.....m xlv.
Aquæ destillatæ.....℥ vss.
Syrupi rubi idæi.....℥ j.

M. Sig. To be taken in the same doses immediately after the first medicine.

At the same time a spray of phenic acid (3 to 100) should be used. The patient should spit in a cup, which also should contain a solution of phenic acid (5 to 100). After twenty-four hours, under this treatment, the temperature sinks down to normal, and in forty-eight hours the false membranes disappeared completely.

—*El Siglo Medico*, 7, 18, 88.

METALLIC MERCURY IN HERNIA.

Sorel reports a case of inguinal hernia, which was reduced by taxis, but the symptoms of obstruction persisted, even after calomel and jalap had been given in full doses, and enemas used. While an indubitable diagnosis could not be made, the opinion was that there had been reduction *en bloc*. Ice was used externally and internally, with enemas of tobacco and of purgatives, given with a long tube, and three grains

of extract of belladonna in twenty-four hours. This treatment was continued for many days, the vomiting ceasing, but the tympanites persisting, and no stools occurring. The induced current was used ineffectually; as well as other purgatives, nux vomica, and many punctures of the intestines to remove the gas.

Two weeks elapsed and the patient's condition became critical, when 150 grammes of metallic mercury were given. This was followed by small stools, but it was only after eight days more that a free evacuation was finally secured. Only traces of the mercury were voided, until the sixteenth day after it had been administered.

—*La Normandie Med.*

CHLOROFORM IN PNEUMONIA.

In two cases of croupous pneumonia Dr. Stepp used chloroform with very good results in the following manner: Of solution of chloroform in water or syrup, one to 150, he gave two tablespoonfuls every hour; so that in 4 days 90 grains of chloroform were used. Temperature never rose above 103°, and this only for once. Respiration reached 60 in a minute at that time. Pulse was excellent: 84, 88, 72. Crisis occurred on the fifth. In six cases of typhoid fever chloroform gave good results in the above mentioned doses. The temperature fell, and long remissions set in, and convalescence soon followed. The patients did not fall into the semi-unconscious state, and they looked after 3 or 4 days fresh and well.—*N. 8. Münch. med. Woch.*

EFFECT OF ACIDS IN BRIGHT'S DISEASE.

A man aged forty years, affected with chronic catarrhal nephritis, complained of violent headache and a disagreeable sensation in the kidneys, pulse hard, bruit de galop in the left heart, urine scanty, rich in albumen red corpuscles and epithelial casts. He had been some days suffering with gastric catarrh, pyrosis, etc., for which he had consulted a druggist. The latter, who was quite well informed as to the latest theories, gave him a solution of hydrochloric acid to take at his meals. On the third day he had such an exacerbation of his renal trouble that the physician was called. The milk-diet soon restored the *statu quo ante.*

—*Revue Med. de la Suisse Romande.*

CHLOROFORM IN ULCER OF THE STOMACH.

Dr. Stepp used in ulcer of the stomach a mixture of chloroform and bismuth subnitrate with very good results. He made a mixture of bismuth subnit. 150.0 to chloroform 1.0 part, and gave this every hour, later three times daily two tablespoonfuls.

The cardiac pains soon ceased and vomiting stopped, and a feeling of hunger soon appeared.

He thinks that chloroform water, which is a disinfectant, an astringent, a hæmostatic, and mild irritant, is indispensable in ulcer of the stomach.—*N. 8. Münch Med. Woch.*

Prof. Dr. H. Kunz—*Arch. d. Pharm.*, 1888, p. 307, says that concentrated solutions of morphine and iodide of potassium or bromide of potassium decompose each other, with the precipitation of morphine hydriodate or morphine hydrobromate; and, therefore, calls attention to the fact, and urges to avoid as much as possible the prescription of the above mentioned salts in watery solutions, or to avoid the precipitation of the morphine hydriodate, or of the hydrobromate by adding some alcohol to the prescription.

Dr. Clemens—To prevent coma in diabetes, he gives the patient from one to two ounces of lime water daily. Patient takes a swallow occasionally until the above quantity is taken. The sugar diminished in the urine, and the acidity of the stomach disappeared under this treatment.—*Med. Ztg.*

HOSPITAL NOTES.

CASE OF OOPHORECTOMY.

Goodell said: Gentlemen—The patient I bring before you this morning is a hard working woman who suffers greatly with pain in the right side, much increased at the menstrual period, and with uterine hemorrhages.

I have decided, on removal of the ovaries, to bring about a cessation of the menses.

The abdomen is cleansed in our usual way, and I make the incision in the median line down to the tendon, and then to the peritoneum.

Picking up a fold of the peritoneum and making sure that it is free from the bowel wall, I open it and find the womb not so much enlarged as I expected, and bearing a small fibroid tumor on its posterior portion.

On the left side there are some adhesions, but none on the right; this is the more curious, as all of the pain was referred to the right side.

In ligating the pedicle, I shall tie my ligature as close to the womb as possible, because there is said to be a nerve there which may give rise to continuance of menstruation. The pedicles are ligated by modification of the Tait knot.

In the Tait knot the needle is passed through the pedicle, carrying the loop of the ligature, which is seized and the needle withdrawn. The loop is then passed over the tumor and drawn tight, with one of the free ends of the ligature above it, the other below. The free ends are then carefully tied, passed around the pedicle, and again tied on the opposite side.

My method is to first pass the loop of the ligature around the pedicle, then pass the free ends through the needle and return them by piercing the base of the pedicle, completing the knot in the usual way. I find this much more satisfactory, especially in the case of a tumor of large size

Thus we do with two knots what in the old way, with a double ligature, took three.

A most excellent Western physician has lost two patients whose death he attributes to the use of the Tait knot; but I believe that the reason he and others dislike it is that they do not know how properly to apply it.

With the first tie I do not make a surgeon's knot, as it takes more force and does not run so smoothly. With the second tie, however, I use the surgeon's knot and draw it very tightly, as in it, it does not make so much difference if the ligature does break.

In cases where there is a broad pedicle, and once is not sufficient, the needle should always be passed through an odd number of times, three or five, but never two or four.

My assistant is giving this patient chloroform, and the apparatus he is using, which I like very well, is that of Junker. Each compression of the bulb throws about a minim of chloroform into the rubber cup which covers the face.

In closing the wound I am very careful that no part of the bowel wall is included in the sutures, and that no foreign body is left in the abdominal cavity.

The cotton which I use in the dressing has just been baked in an oven, for the purpose of destroying germs, for, after all, the best germicide, about which there is no dispute, is heat.

In the course of the after-treatment of these cases I look anxiously for the escape of gas from the bowel, and no matter how audible, it is the most welcome sound we can hear.

Another thing, gentlemen, unless you intend to pursue gynæcology as a specialty and become laparotomists, it is not right for you to take these cases that may come to you from time to time, and operate on them. A short time ago I received a letter from a physician in a small town in which he also had a drug store, and who in his whole life-time will not have the opportunity of performing laparotomy more than a half-dozen times, asking me if I could not teach him on the cadaver to do these operations.

The most successful laparotomists are the most experienced, and it is only within a few years that I have obtained such excellent results. When I look at my earlier cases I am grieved to see how great was the mortality. I recall three successive oophorectomies, all of which I lost. Why? I do not know.

But I and other operators of to-day cannot always live, and must have successors; and if any one of you has made up his mind to become a laparotomist, let him commence at once and learn by experience; but I do not believe that it is right or just to patients for every surgeon to turn his hand to abdominal operations.

M. F. G.

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, APRIL 15, 1889.

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EDITORIAL.

STILL THE EXAMINERS' BILL.

THE phases through which this proposed bill passes are so many and the changes so kaleidoscopic that it is indeed difficult for the conscientious journalist to write an opinion which is not obsolete before it is printed. In brief, the situation at the time of writing is as follows: The various exclusive schools of practitioners succeeded in persuading the legislature to adopt an amendment which provided that no school should be represented by a majority of the Board. In other words, the majority of the Board *must* be composed of exclusives. The gross injustice of this is evident, as this majority represents hardly more than a sixth of the practising physicians of the State. There is no injustice in our classifying all the exclusives as one body instead of two or more, because they have indicated by their present union against the regular profession that they are ready to make common cause against us. The amendment is still more objectionable in that it compels the perpetuation of the division of the medical profession into schools; which is alike contrary to the public welfare and the best interests of the profession. It would have been quite easy to provide for the security of the special schools, without surrendering to them the control. In Illinois the mixed board has been found to work well, all parties seem to be satisfied, and the result is seen in the formation of mixed county societies; to which all practitioners are admitted who hold the certificates of the State Board. To the non-professional mind, this should be a consummation to be wished for; when physicians can practise as they think best, and still meet in harmony. Our legislators had a chance to aid in bringing about such a state of affairs; but instead of this, they have provided a bill for the perpetuation of divisions among physicians.

The committee felt that it was necessary to prevent as much as possible the damage which would ensue from placing such power in the hands of men like the eclectics, among whom it will be exceedingly difficult to find a single man fit to sit on such a Board.

It was decided that the best way to do this would be by proposing an amendment limiting the candidacy for license to practise to graduates of schools having a four years' graded course. This amendment is in the hands of the Legislature and, as the homœopathists do not oppose it, will probably be accepted.

As this will make a radical change in the condition of affairs here, it may be well to inquire what effect it will have upon the medical schools.

The University is now prospering with a three years' course. Its support is largely drawn from this State, and especially this city. If we compare the names of its students with those of the instructors in the various departments of the University, the inference will be that the families of the profes-

sors furnish a large part of the class. In many ways the University has brought city and State interests to her support; so that it is probable that she will lose little by the proposed change.

The Medico-Chirurgical College has also successfully established a three years' graded course, and a number of her students have taken the fourth year. The adoption of a compulsory fourth year by this college will result in little loss, which will be more than compensated by the advantages gained.

The Woman's and the Hahnemann are practically in the same condition; they will not lose very much by the change.

The Jefferson and Pittsburgh schools are colleges which only require two annual courses of lectures. Their classes are largely made up of students from other States. We have not the data at hand relating to the Pittsburgh College, but of the 212 who have just graduated from Jefferson, 110 were not from Pennsylvania. It is not probable that these men will come to Jefferson for four years, who do not intend to settle in Pennsylvania, when they can go to New York and graduate in two years. Why should they? If they desired a thorough course they would have chosen a three-year college. If they cannot obtain a Philadelphia diploma in less than four years, they can get one in New York in just half that time; while the clinical, hospital and laboratory advantages there are as great as in our own city. Unless Jefferson adopted the expedient of providing a four-year course for her Pennsylvania students, and a two-year course for her foreign supporters, she stands a very fair chance for losing more than half her class, if the proposed law goes into effect.

Taken altogether, the law is likely to provide this State with much better physicians, but to curtail the operations of our colleges to the training of local practitioners. It will extinguish Philadelphia as a centre of medical education; and what is our loss will be New York's gain. We cannot hope that this will be compensated by the superiority of Pennsylvania graduates, and that students will be attracted of the class which is able and willing to pay large fees and take more time to secure a Pennsylvania diploma. Supposing that such a class exists, the Yale and Harvard Colleges have not succeeded in attracting them; but rather the schools of Edinburgh and Vienna. From these considerations, we think that the severe strictures in the public press upon Professor Bartholow's opposition to the bill are unjust. There is room for a fair difference of opinion as to whether the bill with the proposed amendment is going to elevate the standard of medicine; and while we believe that it will, we are by no means so positive in this opinion that we are ready to throw stones at the man who differs with us. Even so, it is still a question whether the elevation of the standard will compensate for the injury to the city, and to its colleges, by driving away the greater part of the students from outside the State. Less income means smaller salaries for teachers, less valuable men, less money for laboratories, etc.

For the bill as it now stands, providing for a board controlled by irregulars, who are authorized to license men who have never graduated, we can only designate it as a calamity; practically creating a new diploma mill.

W. F. W.

Prof. S. W. Gross, of Jefferson Medical College, died upon April 16, after an illness of two months.

ANNOTATIONS.

HOUSE-CLEANING.

Ages before the days of schizomycetes, the daughters of Eve had adopted the most effectual method of ridding their homes of the microbic accumulations of the winter. Guided by that unerring instinct which characterizes women, ants and other insects, they turn everything topsy-turvy, dive into the most hidden recesses, and with mop and broom pursue the skulking microbe to his most secret lair. The best of antiseptics, cleanliness, light and free diffusion of air, are utilized, with brushing and sweeping, mopping and banging, scraping and rubbing, until the remotest possibility of dirt is no longer existent. And all this they have done in spite of fuming and fretting, good advice and open opposition, protest and downright scolding, and all the forms of ridicule which the masculine mind could invent. One of the duller sex is said to have set down the spring house-cleaning to a sort of periodic madness which attacked the women; and he built a little summer-house in his garden, intending to shut them up in it when the first symptoms of the malady appeared, to scrub to their heart's content. It didn't work; but he found the pavilion a useful place of refuge at these times.

Now, that our slow intellects have evolved the germ theory, we look with more complacency upon these domestic upheavals; especially as we bear in mind the very dangerous nature of the microbes thus let loose, and keep carefully out of their way. No husband with a proper sense of his duties to his family and to society will endanger his health by beating carpets and inhaling the microbe-laden air. He will recollect the curious immunity which the other sex seems to show against such noxæ, and betake himself to some comfortable resting-place to wait till the danger is past.

In the meantime we may draw the moral from this, that the instinct of woman is not to be disregarded because reason does not satisfactorily account for its conclusions; and, further, that where there is a disagreement between reason and instinct, the latter is more likely to be correct.

In the death of Dr. Bruen, the profession has lost an earnest worker, of high promise. Dr. Bruen's appearance was that of a man of bright intellect, but with a frame poorly calculated to bear the privations of a physician's life. He had a singularly fragile appearance. We have heard that he was attending a case of sickness in West Philadelphia, and that he remained in attendance until after the cars had stopped, and was compelled to walk home. The result was what anyone might reasonably have expected—a fatal pneumonia. Much as we admire such self-forgetfulness on the part of the devoted physician, who is too much engrossed in his patient to care for himself, we may well ask, Is it right? Is the interest of any one patient to be consulted at the risk of depriving one's family of the father, and blotting out a life whose usefulness might have been manifested in hundreds of similar emergencies? Such men as Dr. Bruen are not developed every day, and their lives are worth more than those of ordinary mortals. As a French officer remarked of the famous charge at Balaklava, "It is magnificent, but it is not war."

LEAD AND ZINC PAINT.

The *Canada Medical Record*, for March, contains a note from Dr. Foley advocating the substitution of zinc for lead in painting, in order to lessen the occurrence of saturnine poisoning. He states that zinc is cheaper, lasts longer, oxidizes quicker and mixes equally as well, besides being more wholesome.

The facts are, however, somewhat different. The market price varies; lead being sometimes cheaper than zinc. Lead is preferable for outside work, as it withstands the wet and cold much better. Zinc is not so durable, but is used for inside painting, because it gives a better white, which does not turn yellow, as lead does. There is no reason why a painter should have lead poisoning, as the cause is well known in the shops, as well as the means of prevention; and if a working man is too negligent to use proper precautions, he deserves to be a sufferer. At least some better reason should be advanced before giving up the use of lead.

LETTER FROM PARIS.

Exalgine, meaning that which chases away pain, is the name of the latest newly born therapeutic agent. Its real name is very much longer: *Ortho-monomethylacetanilide*, and its virtues ought to be great if its therapeutical power can be estimated by the number of syllables in its name. The substance was discovered by Bardet, and introduced to the Academy of Sciences by Berthelot. It resembles antipyrin a great deal, but seems to act on sensibility much more actively than that drug, and less so on the thermogenetic centres; so that it is a pure analgesic. The dose used is smaller than that of antipyrin, being 30 to 50 centigrammes in one dose, or 50 to 75 taken in two doses in the twenty-four hours. The quick relief it gives from pain is remarkable in all forms of neuralgia, and there is no gastric or intestinal irritation after its use, nor any rash or cyanosis, as there so often is with antipyrin and acetanilide. It is eliminated by the urinary passages and modifies the amount of sugar produced in diabetic polyuria. It should be given with a little alcoholized water, as it dissolves readily in that menstruum; but is rather insoluble in water. It is like all of this new group of medicines, antiseptic, antithermic and analgesic, but this last action is the dominant one in this special form.

This remedy is now being experimented upon in quite a large scale in the Paris hospitals, and we will shortly be able to send fuller reports of its action as a pain-killer.

LONGEVITY OF MICROBES.

The resistance of germs is an interesting study, and has its importance. Do they live to an old age or do they die young? Of course we refer to the so-called pathogenetic germs that infest humanity, and which, if they are not the cause of the disease, have something to do with carrying it about the human organism. The micro-biologists admit that notwithstanding their precision in research and the intensity of their cultures, and the multiplicity of their sowing of eggs, they cannot say how long the germs live; and they come now asking clinical medicine to tell them. It is high time that we devote more attention to clinical points, or, as Claude Bernard said: "If you don't stick to rigorous clinical observation you will lose yourselves."

The medical society of the hospitals thought that the duration of germ-life was very short in this world, but numbers of clinical facts go to prove that it is otherwise. For instance, a family of three persons come from the country, where there is no sign of measles, and occupy an apartment in Paris that has been vacant for nearly two years, and, soon after, one of the family is taken with measles, and on inquiry it is found that a child had been ill with measles in the same rooms some eighteen months before. M. Worms kept a camel's-hair pencil for four years after having painted the throat of a boy with diphtheria with it, and, using it again, he gave diphtheria to a child, and was reminded of the fact too late. Yet Messrs. Roux and Versin, who have lately experimented with the diphtheria microbe, think that it only lives for six weeks. Clinical facts are nearer the truth than experimental ones.

COMPARATIVE VALUE OF THE OLD AND THE NEWER METHODS OF CURING.

Gonorrhœa. An old army surgeon, Dr. Martin, compares the new and old style of medication, after an experience of many thousands of cases, and also by consulting the hospital records of many of the European hospitals. The old method used was sulphate of zinc injections and cubebs and copaiba to follow, combined with repose and diet. The new treatment may be briefly described as an antiseptic one, consisting mostly of injections, alone, of solutions of quinine sulphate, one per cent., permanganate of potassa of one to two thousand, and bichloride of mercury one to twenty thousand. To jump at once to the conclusions of a tabulated mass of cases given, it may be stated that the antiseptic system is proved to have many advantages over the old system, and it may be used from the very commencement of the attack unless there are local complications.

These injections were found to be all that are required, and rapidly and com-

pletely do more than the old astringent and balsamic medication. The preference is given to the bichloride of mercury or the bin-iodide. Lately, again, a newer remedy is given, in the salicylate of mercury as follows: Salicylate of mercury, five centigrammes to 100 grammes of water in the acute cases; injections twice a day; but in chronic cases the injection must be stronger; the salicylate of mercury to be increased.

We were just closing this account, when we were handed a sample bottle of "*Raguin's capsules of Copahivate of soda*," with the information that they consist of the copaiba as it is dissolved in the body, and that it will cure gonorrhœa without trouble, and has no smell as the drug itself has, so that the balsamic odor clings long to us. But the antiseptics seem destined to drive it out of the field.

A NEW METHOD OF USING IODINE

Is an iodized paper, which is only Berzelius paper cut into strips and incorporated with a solution of iodine dissolved with iodide of potassium. It offers a new therapeutic agent that presents considerable advantages over the application of liquid iodine tinctures. When wet and placed on the skin and covered with oiled cloth, its revulsive action is very rapid; ten to fifteen minutes being enough. On the contrary, if it is placed on the skin dry, the revulsion is almost nil; and the absorption goes on very rapidly, by the cutaneous surface, as is proved by the discoloration of the paper in twenty-four hours. Not only does the free iodine penetrate into the economy, but also the alkaline iodide, which decomposes the fatty acids of the perspiration, under the influence of the humidity, and thus favors absorption.

This paper is now sold here under the name of Gay-Lussac paper, to recall the eminent chemist who first did so much for iodine.

INTRA-STOMACHAL FARADISATION IN THE TREATMENT OF DILATATION OF THE STOMACH.

M. BARADUC, well known for his clever applications of electricity, presents this subject to a local medical society and shows a number of cases to prove its efficacy. It consists in using Faradisation only, with a simple celluloid catheter and fine wires, in all nervous gastralgias with slight dilatation. When the dilatation is very marked a larger wire is used, with the stomach sound arranged to evacuate excess of liquid. A retraction of the stomach walls is produced, which causes slight cramps, but leads to decided amelioration, and accomplishes final cure in (9) cases given by Dr. Baraduc.

DR. J. MONARD

of *Aix les Bains*, has just published an interesting work on that sulphur water station, of which we would like to refer to one point, only, as it applies to any hydrological therapeutical measure. M. Monard very honestly says that hydrology, like all other branches of medical science, should be inspired by the newer methods of investigation; that is, by experimental research and also by clinical facts. The latest studies on the action of such modifying agents as hot water prove that they reach the profoundest depths of nutrition; but they produce their cures as much by the hygienic and mechanical effects as they do by the chemical substances contained in the mineral water.

The real benefit then derived from a mineral water cure is mostly hygienic; the change, massage, hot baths, mountain or country air, thus admitted by the eminent hydrologist, M. Monard, to be the active agents in cure.

Indeed, it is well known that the waters of Aix les Bains are but feebly mineralized; which does not prevent thousands of people being yearly relieved of many ills, rheumatic, etc.; but it is only fair that we physicians no longer ascribe magic virtues to the sulphur or other chemical in the waters.

LOCAL USES OF NAPHTHOL.

The antiseptic qualities of naphthol are now being made use of very largely in hospital services here. In surgery the following alcoholic solutions are used:

℞ Naphthol Beta. .....1 gramme.
Alcohol at 60°.....1 litre (quart).
M.

This is mostly used to render aseptic the parts where operations are to be

made, especially where there is hair growing.

Where the skin is denuded this formula is used:

℞ Naphthol Beta.....15 grammes.
Alcohol at 60°..... 1 litre.
M.

The mouth being the great centre of microbic action the following is advised to keep it in order:

℞ Liquid dentifrice, Eau Botot
or any other.....100 grammes.
Naphthol Beta..... 1 "

M. S. Use as usual with dentifrices; put a little on brush for teeth. Rinse the mouth with a tablespoonful to a glass of warm water.

Camphorated naphthol is a capital preparation for local use to tubercular ulcerations of the mouth, tongue, etc., etc. It is prepared as follows:

℞ Naphthol Beta pulverized..15 grammes.
Powdered camphor. .....30 "

M. f. This must be triturated until the powders are liquefied.
S. Rub a little on the part affected.

Any of the above can be used in dressing wounds either plain or mixed with water.

A much more concentrated solution is used for touching septic wounds. Naphthol is also used to inject into closed cavities, as cold abscesses, etc., or into the pleural sac. In these cases everything should be warm, the syringes, bottles, etc. The solution should be freshly prepared as follows:

℞ Naphthol Beta..... 5 grammes.
Alcohol at 90°.....35 "
Hot water.....60 "

M. f. Filter it while hot.
S. Inject more or less according to the septic quality of the cavity.

DANGER OF STOVES.

The Academy of Medicine has been occupied for several weeks in discussing this question. M. Lancereaux started the subject some time ago, when several cases of carbonic oxide poisoning had occurred. The question of stoves is quite a new one in France, where open fire places have always been the rule. The older stoves wasted a great deal of caloric, as they were pushed by air to burn rapidly and finished by heating up to 50° or 60° (C), and this heat simply passed up the chimney, doing but little good to the rooms unless kept up to burning heat. The newer stoves burn by slow combustion and the economy of coal is great, while the heat given is immensely superior; but salubrity, health, and hygiene are entirely sacrificed. Then, again, this slow combustion is only obtained by stopping off all air, just as if we turned the damper off all the time and allowed the gas to accumulate in the house. Besides this, many of the French stoves are put on wheels, so that they can be moved about from room to room. Coke is also used.

M. Dujardin-Beaumetz says that all we can do is to advise the use of soft coal, which will give smell enough to call attention to the gas; also that in place of covering the fire at night during sleep, we should, on the contrary, advise that a brisk, bright fire be kept up to carry off the noxious carbonic oxides.

NOTES.

In answer to a question, permit us to say that there are about 2,500 physicians in Paris, five of whom are Americans, fifteen English, and there are also in the number given half a dozen Russians, with from two to three of all the other nations of the world, including Turks and Chinese.

Professor Grancher closes one of his late clinics with these words: "Modern treatment in surgery, obstetrics and medicine is based on one word, *cleanliness;* and it is the commencement of wisdom with the best half of our therapeutics."

Narcotic rectal injections are often useful when the patient for any reason cannot take medicine by the stomach; the following is the latest:

℞. Sulphonal.....2 grammes.
Powdered gum.....3 "
Sweet almond oil.....5 "
Water.....150 "

(Or the same amount of chloral may be used here.)

Mix, in a mortar, the oil and gum powder; add the sulphonal or chloral little by little, beating well, and in five minutes the emulsion is ready; give all of it at once, slowly. Given in this way it does not irritate the rectal mucous membrane. THOMAS LINN, M. D.

SOCIETY NOTES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DR. ANDERS reported (March 13) a case of senile chorea which had resisted treatment by bromides, arsenic, antifebrin and hyoscin. He pointed out that this affection differs widely from the chorea of childhood.

DR. M. PRICE reported a case of intestinal obstruction from epithelioma. The growth was found to involve the sigmoid flexure. It was excised, with four inches of the bowel and a V-shaped piece of mesentery, and a false anus formed. The case was doing well.

DR. PENROSE spoke of the importance of making an artificial anus, instead of immediately restoring the intestinal tract.

DR. G. BETTON MASSEY exhibited an elastic intra-uterine electrode. It was made of a spiral wire, terminating in a bulb, with the stem insulated. The insulation may be extended by covering the wire with India-rubber tubing. Such electrodes should be boiled five minutes before their introduction, to insure cleanliness.

In the discussion DR. J. PRICE, who does abdominal sections, called attention to the dangers of the rival method.

DR. BALDY aptly divided electricians into those who think there is a limit to the good to be accomplished by that agent, and those who don't. He also spoke of the difficulties in making accurate diagnosis.

DR. HOFFMAN, another abdominal surgeon, also exhibited skepticism as to electricity.

THIS led DR. GRAYDON to remark that operative treatment was also open to criticism. He had seen fixed uteri released, and fibroids lessened by electricity.

DR. J. PRICE presented a cyst of the vagina and urethra.

PHILADELPHIA OBSTETRICAL SOCIETY.

At the February meeting, a paper was read from Dr Bigelow on "Apostoli and His Method." He believes that the current produces a change of *cell life*, besides the purely chemical action. The induced current has a wondrous effect upon the ovarian pain of hysterical women. He has yet to see a bleeding fibroid which fails to respond immediately to the continuous current, the positive pole being applied to every part of the endometrium. Apostoli's method arrests hemorrhage, diminishes size, relieves pain and improves nutrition, without endangering life, better and more surely than any other method.

DR. J. PRICE gave his report of a year in a maternity hospital. There has been no death of a mother in five years, with 540 cases.

CLINICAL SOCIETY OF MARYLAND.

DR. THEOBALD recommends the use of boric acid in solution, 1 to 32, in otorrhœa, preferring it to the same drug in powder and to bichloride of mercury.

DRS. RANDOLPH and WOODS advocated the bichloride, diluting it until it caused no pain. The latter urged the importance of carefully cleaning the ear.

DR. KEIRLE exhibited a uterus from a supposed case of criminal abortion. A sponge tent had been in the cervix for about twenty-four hours, causing an ulcer with fatal septicæmia.

DR. ROHE stated that he had treated two cases of goitre by electrolysis. In one the circumference of the neck diminished one inch in two weeks. In the other the disease almost entirely disappeared. He applied the electrodes to the skin over the gland. When a needle is passed into the growth a scar is apt to result. The current used was about eight milliampères.

DR. HARLAN reported good results following the injection of acetic acid.

DR. CHARLES O'DONOVAN, JR., read a paper entitled

A PLEA FOR THE USE OF THE MANGANESE COMPOUNDS IN CERTAIN FORMS OF DYSMENORRHŒA,

in which he related several typical cases of different classes, from which he drew the following conclusions:

1. The manganese compounds are valuable additions to the therapeutics of dysmenorrhœa, from which, in a certain number of properly selected cases, great benefit may be expected.

2. This use does not interfere in any manner whatever with the administra-

tion of iron or the vegetable tonics, but rather aids, and is aided by them.

3. The best results from the use of these remedies may not be obtained at once, and failure should not be confessed until after a continuous trial, lasting for three months.

4. So far as we know at present, the black oxide of manganese is the most convenient form for administering these drugs.

Several speakers remarked that their results with manganese were not as good as those reported.

Dr. Norris said he had used these salts in six cases of pregnancy without causing abortion.

PHILADELPHIA NEUROLOICAL SOCIETY.

STATED MEETING, FEBRUARY 25, 1889.

Dr. S. Solis Cohen read the notes of a case of obstinate sciatica cured by deep injections of osmic acid. The case was chiefly interesting on account of the number of medical and surgical experiments which had been previously made upon him, without any benefit. The gynecologists had not an opportunity in this case, as it was a man.

Deep injections of a centesimal osmic acid solution, ten to thirty minims, were practised in the thigh; the object being to reach the neighborhood of the point where the nerve emerges from the foramen. The injections were made at first daily, then tri-weekly, during a period of seven weeks. The scientific value of the cases is somewhat marred by the fact that pills of morphine, belladonna and quinine were given at the same time, to produce sleep.

Dr. Mills divides his cases of sciatica into recent, old, and intermediate. Recent cases yield to salicylate of sodium, oil of gaultheria, and analogous drugs, associating with this treatment the hypodermatic injection of morphia and atropia, and sometimes of theine. For the old cases he used some very old remedies, and often with greater success than some of the newer remedies. He had used turpentine with success after the method first recommended by Thomas King Chambers. He also used Donovan's solution in fair doses; also iodide of potassium and colchicum. In these cases he nearly always associated with the foregoing agents the use of cod-liver oil, massage, and electricity. On the whole, he got as good results from this treatment as from any other. He had also used the Adamkiewicz electrode, by means of which chloroform is applied externally and electrically. This treatment had proved successful in a few instances. All, of course, have used counter-irritation. The use of the hot iron certainly acted better than any other form of counter-irritation. So far as osmic acid is concerned, he had had very little experience. He had used nerve-stretching by the method without cutting, and in a few cases by cutting, but never with any marked success.

Dr. Lloyd spoke of a case which recovered after abscesses had occurred, following hypodermics of morphine. He also mentioned a case in which a cure followed the actual cautery, four holes being burned along the course of the nerve.

Dr. Dercum objected to the burning of holes, believing that repeated, superficial cauterization gives better results. He also spoke well of the salicylates.

REVIEWS AND BOOK NOTICES.

ABDOMINAL PALPATION IN OBSTETRICS.

BY DR. A. PINARD, PARIS.

The obstetrical world is under many obligations to Dr. A. Pinard, accoucheur to the Lariboisiere Hospital in Paris, for a new edition of his work, "A Treatise on Abdominal Palpation from an Obstetrical Point of View and Concerning Version by External Measures."

Since the first edition of this work appeared ten years ago, the practice of employing palpation as a means of diagnosing the presentations and positions during pregnancy has become widely known by all those who practice obstetrics everywhere. Despite numerous and valuable works demonstrating its importance, abdominal palpation has not been appreciated, although it has been recommended for a long time, superficially employed by many and disdained by a large number. At least this is the

case in France, where but a small number of well instructed practitioners have understood its importance, used it in their personal practice and instructed their students therein. It is only just to Dr. Pinard to say that from the date of his first publication in 1878, palpation has taken a prominent place in its domain, and this little volume has exercised a great influence on obstetrical instruction in France. This has gone far to place before the profession a means of diagnosis which must render more service to the pregnant woman and the accoucheur than the touch and auscultation.

The second edition contains 400 pages and is divided into three parts. The first treats of the accommodation of the fœtus during pregnancy and the causes of the diverse presentations.

The second part contains most of the recent acquisitions made by the author. One chapter almost entirely new is devoted to his investigations of the uterus during the first half of pregnancy. The volume, the consistence and form of the organ during this period has been studied with care. Dr. Pinard says: At the third month, the fundus of the uterus is ordinarily at 9 centimeters above the superior border of the pubic symphysis. In the fourth month it is about 15 centimeters above, more or less nearly to the umbilicus. I have never found a uterus which did not pass the umbilicus in the 5th month." These facts differ notably from the general teachings. Next comes the diagnosis of palpation. In the cases where the fœtus dies and is retained in the cavity of the uterus. During the first half of pregnancy, three distinct conditions of the uterus can be known by palpation.

1. The uterus is perceived with difficulty, one has the greatest trouble to appreciate its contents.

2. The uterus is easily perceived in the form of a constant hard globe, the contraction is permanent, the expulsion does not retard recovery.

3. By palpation, the uterus is observed under the form of a tumor which is soft and elastic and contracts under the hand.

In the second half of pregnancy, palpation not only permits the perception of the modification of the contents of the uterus, but also of that organ, the ovum and particularly the fœtus. The sensations furnished by the fœtus from the day of its death to the moment of its expulsion are analyzed after a masterly fashion.

The author reviewed the services which can be rendered by palpation in the diagnosis of degenerate and extra uterine pregnancy. These two little chapters contain extremely interesting facts. Following the diagnosis of the presentation and position, Dr. Pinard states that when the head is engaged a sign is given in the projection of the frontal region which is of great importance; this fact has been elucidated before by Dr. Pinard.

In the presentation of the breech he accords more importance to the furrow of the neck than the cephalic ballottement. "The sensation of the furrow has more value still than the ballottement; the latter proves which extremity is furnished with the breech." He also adds, "For me the characteristic sign pathonogmonic of the presence of the head at the fundus of the uterus is the finding of the furrow of the neck. The ballottement perhaps develops that the breech is above and that we have to deal with an occipo-posterior position, whilst the perception of depression of the neck plainly indicates where to find the head. One perceives a continuous plain, a united surface between the breech and the trunk, while between the trunk and the head we find a marked depression which permits the pressure of the fingers into the cervical region."

There is one absolutely new application, that of mensuration in palpation. The insufficiency of facts furnished by mensuration in touch, the uncertainty of the means at hand for calculating the dimensions of the fœtal head after the approximate age of the pregnancy, has induced M. Pinard, as well as others, to seek for new and clear indications for immediate intervention in cases of contraction of the pelvis. The palpation by mensuration permits him at any hour during the last month of pregnancy, to appreciate that the head can or cannot penetrate more into the excavation. The absolute dimensions of the head are of little importance compared with the

exact dimensions of the pelvic opening. The fact of most value for our information, is whether the first shall be able to pass the second. M. Pinard thus describes the proceedings: "When called to see a pregnant woman in the course of the seventh month, if I find the head not engaged, I return it; if it is not already above the space of the superior strait, I bring it down and assure that the presentation will be unmistakably longitudinal, so that the head will be perfectly perpendicular above the excavation. I then take it with the two hands to the front and occiput, and communicating to it some lateral movements, touch it in the greatest number of points possible at the pelvic inlet. That done I fix it there and carrying my hand to the surface of the neck I press up and down. Then with the other hand I go in search of the anterior arc of the pelvis at the border of the pubic symphysis, and at this surface I try to depress the abdominal wall and insinuate my fingers between the symphysis and the head, always continuing to push with the other hand up and down. This renders the engagement of the head in the excavation very easy. When the head is arrested on the surface of the symphysis between the anterior arc of the pelvis and the border of the sacro-vertebral angle, I endeavor to learn whether it is too large for the symphysis and how much too large."

Those who have seen M. Pinard practising his palpation by mensuration have been astonished by the precision of the information obtained. He does not, however, on this account advise the neglect of the mensuration by touch. He says, "I think to-day that palpation by mensuration permits one to appreciate at the same time the relation which exists between the dimensions of the head and those of the pelvis. It gives such indications more plainly and more precisely than the touch and it is this which must guide the accoucheur in regard to the nature and movement of the intervention."

In the hands of Dr. Pinard this new proceeding gives remarkable results. Are they more difficult to appreciate than those which are obtained by the touch? M. Pinard does not think so, he considers it an affair of habit. It is evident that palpation by mensuration is destined to render the greatest service to those who are possessed of the skill acquired by the practice of palpation.

The two following chapters are interesting discussions of the diagnosis of hydrocephalus; these contain many new facts. Another chapter, whose pages are of very great importance treats of the practice of palpation during the period of deliverance.

The third part is devoted to version by external maneuvers.

The manual operation is described much more in detail than in the first edition. The author insists on the means to mobilize the fœtus when he desires to change the presentation of the breech to that of the head. He shows clearly that it is the pelvic extremity which must chiefly act to produce the evolution of the fœtus. The statistics at the maternity of the Lariboisiere have great weight in favor of the operation employed to correct the presentation of the shoulder. The version by external maneuvers is accepted without question. M. Pinard thus expresses himself in the discussion of the presentation of the breech: "The adversaries of the version by external maneuvers in breech presentation are adversaries from prejudice. Their opposition is nothing serious and on the part of most of them is the more vigorous the less the experience they have with the method." M. Pinard recommends the employment of the uterine bandage, which is of great utility and efficiency.

The diagnosis of the presentation being established, after having found that the fœtal region is not enough engaged to permit delivery, it is necessary to introduce two fingers of the hand into the vagina and apply them to the anterior fontanelle. This is usually accessible, for it is situated in the centre of the pelvis and is very easily approached. This being done, the other hand which remains free searches externally for the occiput. When the hand is well applied to this region, simultaneous pressure being exercised on the body, the fingers applied to the occiput through the abdominal walls will be pressed up and down, while the fingers press down and up on the frontal portions. To succeed more

easily it is necessary that the pressure may be directed not only up and down, but also laterally and inversely.

With its numerous and important additions, the second edition of this book presents very great interest to those who will learn what is known of accouchement. E. S. McKEE.

HANDBOOK FOR THE HOSPITAL CORPS OF THE U. S. ARMY AND STATE MILITARY FORCES. By CHARLES SMART, MAJOR AND SURGEON, U. S. ARMY. WM. WOOD & Co.

This little book, approved by the Surgeon General, seems to be admirably adapted to the use of non-commissioned officers, hospital stewards, and privates attached to the army hospital corps, for whom it is intended. It describes the rights, duties, and rules of the corps in camps, and in post, field, and general hospital, and gives information on the transportation of wounded, and on sanitary and meteorological matters.

Part II covers the rudiments of anatomy and physiology.

Part III treats of first aid to injured, wounds, hemorrhage, inflammation, antisepsis, nursing, fractures and dislocations, and the causes of insensibility. Artificial respiration, foreign bodies, and disinfection are quite thoroughly discussed, and the chapter on poisons is especially good. The book closes with a brief description of electricity and galvanic batteries.

To persons not educated in medicine and without time or opportunity for the perusal of large text books, but who are thrown into positions where more knowledge of these branches than is ordinarily possessed by the laity is required, this little pocket library will prove very useful. M. F. G.

ATLAS OF VENEREAL AND SKIN DISEASES. With Original Text by Prince A. Morrow, A.M., M.D., New York. William Wood & Co., 1888.

Fasciculus X contains plates representing eczema of palm, palmar psoriasis, eczema rubrum; eczema seborrhoicum, dry, scaly and moist forms; impetigo figurata and contagiosa; dermatitis exfoliativa, pityriasis rubra; dermatitis medica mentosa, iodide and bromide eruptions.

Fasciculus XI contains herpes zoster, febrilis and progenitalis; dermatitis herpetiformis, pemphigus vulgaris and foliaceus; purpura simplex and thrombotica.

Fasciculus XII contains psoriasis of hand, body and arm; lichen planus, ruber, and ruber moniliformis; acne vulgaris and rosacea; molluscum epitheliale; verruca senilis.

PAMPHLETS.

"The Comparative Danger to Life of the Alternating and Continuous Electrical Currents." By Harold P. Brown, New York.

Climate and Malaria. By Joseph Parrish, M.D., Burlington, N. J.

The Medical Jurisprudence of Inebriety. By Joseph Parrish, M.D., Burlington, N. J.

Prevention and Restriction of Smallpox. Issued by the Michigan State Board of Health.

Therapeutics Can Become a Science. By William Sharp, M.D., F.R.S. London. George Bell & Sons.

On the Relation Between the General Practitioner and the Consultant or Specialist. By L. Duncan Bulkley, A.M., M.D.

"Recurrent Pelvic Peritonitis." By B. F. Baer, M.D., Phila.

"Report of some recent cases of Abdominal Section." By B. F. Baer, M.D., Phila.

Report of a Case of Pregnancy in the Right Horn of a Uterus Bicornis, treated successfully by a modified Cæsarean operation, twelve months after the death of the child at the full term of gestation: so-called "Missed Labor." By B. F. Baer, M.D., Phila.

Recent innovations in the "Therapy of Syphilis." By G. Frank Lydston, M.D, Chicago.

Report of the Committee on Ophthalmology and Otology. By Seth S. Bishop, M.D., of Chicago.

A new adjustable Lamp Bracket. By Seth S. Bishop, M.D., of Chicago.

"The Gonococcus." By W. B. Canfield, M.D., Baltimore.

"Clinical Studies of the Pulse in Childhood." By John M. Keating, M.D., and Wm. A. Edwards, M.D., Phila.

"Foreign Bodies in the Urethra and Bladder." By De Forest Willard, M.D., Phila.

"The History of Education in North Carolina." By Charles Lee Smith, Washington Government Printing Office.

Annual Report of the Trustees of the State Hospital for the Insane, at Warren, Penna., for the year ending Nov. 30, 1888, to the Committee on Lunacy.

YELLOW FEVER. By Wolfred Nelson, New York City. Fifty pages of interesting talk about the hot-beds of this disease in Cuba, the Holt method of disinfection at New Orleans, etc.

"Osteotomy for Anterior Curves of the Leg." By De Forest Willard, M.D., Phila.

"Nephrectomies for Gunshot Wound and for Tuberculous Kidney." By De Forest Willard, M.D., Phila.

"On the Microscopical Examination of Urinary Sediment." By William B. Canfield, A.M., M.D., Baltimore.

"The Immediate Application of Forceps to the After-Coming Head in Cases of Version with Partial Dilatation of the Cervix." By H. C. Coe, M.D., M.R.C.S., New York.

"Poisoning by Chrome Yellow used as a Cake Dye." By David Denison Stewart, M.D., Phila.

LETTERS TO THE EDITOR.

It is the earnest desire of the Editor to increase the usefulness of this Journal and to render it a practical helper to its readers. One method of accomplishing this end is by means of a column devoted to letters to the Editor. Short, concise papers upon medical subjects, records of cases worth being reported and queries on any medical subject are requested.

BRIGHT'S DISEASE.

I take advantage of your invitation to write to you, asking a few words of counsel. My case is one of Bright's disease; a lady twenty-nine years of age, strong, of fine physique, showing signs lately of rapid failure. The disease is of fifteen months' duration. There is considerable œdema of the abdomen, face and hands; with dizziness and fainting fits. The kidneys act irregularly; at one time freely and at another almost total suppression occurs. The bowels alternate between constipation and free, serous diarrhœa, with fainting. The urine on being tested shows a precipitate occupying about one-third of the bulk.

The patient is still hopeful, and generally attends to her household duties. Sometimes all the symptoms disapear except the albuminuria. Her face begins to have a waxy look.

I have tried to keep up the tonics, iron, etc., with the milk diet, which was submitted to fairly well. She has taken diuretics, the best results being obtained from digitalis. Jalap has also been given, with no results, and she has tried a few Turkish baths.

Will a change to Washington Territory be of any benefit? Will you suggest a treatment, definitely?

C. H. JOHNSON, M. D.

Armourdale, Kansas.

[We do not believe that a change to Washington Territory would be advantageous. A dry, sheltered residence should be secured; the lady must wear woolen underclothes and stockings; and must avoid catching cold. She should go on the exclusive milk diet, varied only by the use of buttermilk or junket. She should have jaborandi to relieve uræmic symptoms and to reduce the dropsy, and acetate of potassa steadily given until the albuminuria disappears. The results are fairly good if the hydræmia be not too great. Life may be prolonged indefinitely, though there is no certainty, as the fatal attack may occur at any time.—ED. P. M. T.]

DROPS NOT GRAINS.

MR. EDITOR:—In your last issue, page 449, the types credit me with ordering "thirty grains digitalis at bedtime" in the treatment of seminal emissions. Will you please note the erratum in your next, and call your readers' attention to the fact that my prescription was "thirty drops at bedtime," *i. e.*, fifteen minims, representing about two and a quarter grains of the leaves, which is the ordinary maximum dose. To some persons, in the dose first mentioned, the remedy would be worse than the disease.

FRANK WOODBURY.

ABSTRACTS.

AXIOMS IN ELECTRO-NEURO-THERAPY.

1°. Paralysis of vaso-motor centres is followed by dilatation of capillaries.

2°. Irritation of vaso-motor centres is followed by contraction of capillaries.

3°. Paralysis of spinal nerves is followed by contraction of capillaries in paralyzed area.

4°. Irritation of spinal nerves is followed by dilatation of capillaries at points of irritation.

5°. Irritation of spinal nerves inhibits vaso-motor activity in area irritated—vaso-motor paresis.

6°. Paralysis of spinal nerves allows increased tonic action of vaso-motor centres, in paralyzed area—inhibitory actions of spinal system being removed—and increased vaso-motor activity is shown by contraction of the capillaries.

7°. Increased amount of oxygen in the blood—arterial blood supply—lessens activity of the vaso-motor centres.

8°. Diminished amount of oxygen—venous blood supply—increases tone or activity of vaso-motor centres.

9°. Afferent impulses affecting the vaso-motor centres are for the most part conveyed by the sensory nerves, while afferent impulses from these centres pass along special vaso-motor nerves.

10°. Afferent impulses may either inhibit or exalt the activity of a given vaso-motor centre.—SHAW, *in St. Louis Med. & Surg. Journal.*

MISCELLANY.

MEDICO-CHIRURGEONS.

DIPLOMAS AND PRIZES AWARDED AT THE COLLEGE'S COMMENCEMENT.

Friends and relatives of the graduates of the Medico-Chirurgical College filled the Chestnut Street Opera House on April 4, on the occasion of the eighth annual commencement of that institution. The faculty occupied seats on the stage, the front of which was tastefully decorated with flowers.

Rev. Byron A. Woods offered prayer and the exercises were interspersed with music. Professor James E. Garretson, A.M., M.D., delivered the valedictory. Degrees were conferred upon these graduates: Irvin C. Breece, John B. Cassady, S. Woodruff Clark, John Welsh Croskey, John W. Frankhauser, George William Grube, M.D., Joseph Miles Grube, John H. Hammond, C. Frank Hertzog, Silas Hertz, Charles Ellsworth Hewitt, Elmer Ellsworth Horn, Charles Wellington Hughes, M.D., A. Arthur Jones, J. Adam Krug, David W. Levy, Willis Upton Miller, Gilbert D. Murray, John A. Reyburn, Harvey Robinson, Ernest Brewster Sangree, Frederick Albert Schock, Abram L. Sherman, Monroe T. Smith, Herbert A. Starkey, Joseph Henry Thacker, Julius Trester Vissel, William H. Walling, W. Weightman Walker, C.E., Albert T. Zeller, Ph.G.

Prizes were awarded as follows: The Faculty Gold Medal, for the best average on final examination, Ernest Brewster Sangree, of Pennsylvania, with honorable mention of J. Adam Krug, of Pa.; John B. Cassady, of N. Y.; Julius T. Vissel, of Pa.; S. Woodruff Clark, of R. I.; Albert T. Zeller, of N. Y.; John W. Croskey, of Pa.; Gilbert D. Murray, of Canada; J. H. Thacker, of N. C.; H. A. Starkey, of Pa.; John A. Reyburn, of Pa.

The faculty gold medal for thesis showing most labor and originality to John W. Croskey, of Pennsylvania, with honorable mention of E. B. Sangree, of Pennsylvania.

Special prize for the best examination upon Practice of Medicine to Ernest B. Sangree, of Pa.

Prize for best examination on surgery to John W. Croskey, of Pennsylvania, with honorable mention of John B. Cassady, of New Jersey; S. Woodruff Clark, of Rhode Island; J. Adam Krug, of Pennsylvania; Gilbert Murray, of Canada; John A. Reyburn, of Pennsylvania; E. B. Sangree, of Pennsylvania; Herbert A. Starkey, of Pennsylvania; Joseph H. Thacker, of North Carolina; Julius T. Vissel, of Pennsylvania; Albert T. Zeller, of New York.

Prize, bag of gynæcological instruments, for best examination in gynæcology, to Julius T. Vissel, of Pennsylvania, with honorable mention of E. B. Sangree, of Pennsylvania, and J. A. Reyburn, of Pennsylvania.

Gold star medal for best examination in anatomy to E. B. Sangree, of Pennsylvania, with honorable mention of S. W. Clark, of Rhode Island; J. H. Hammond, of Delaware; F C. Hertzog, of Pennsylvania; C. E. Hewitt, of Pennsylvania; J. A. Krug, of Pennsylvania; W. U. Miller, of Pennsylvania; G. D. Murray, of Canada; J. H. Thacker, of North Carolina; J. T. Vissel, of Pennvania; A. T. Zeller, of New York.

Special prizes offered by Dr. Spencer Morris, for the best examination on differential diagnosis and hygiene, were

awarded as follows: First prize of $50 to J. Adam Krug, of Pennsylvania; second prize of $30 to Julius T. Vissel, of Pennsylvania; third prize of $20 to S. W. Clark, of Rhode Island.

Prize, gold medal offered by Dr. Henry C. Boenning, demonstrator of anatomy, for best examination on practical anatomy, to Julius Trester Vissel, of Pennsylvania.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 24, 1889, TO APRIL 6, 1889.

C. O., at Los Angeles, Cal., reports the death of Lieut.-Col. R. H. Alexander, Surgeon U. S. Army, at 11 50 this morning, March 29, 1889. [Telegram.]

COL. CHARLES H. ALDEN, SURGEON U. S. ARMY; MAJOR HENRY MCELDERNY, SURGEON U. S. ARMY; CAPTAIN WASHINGTON MATTHEWS, ASSISTANT-SURGEON, U. S. ARMY; and CAPTAIN JAMES C. MERRILL, ASSISTANT-SURGEON U. S. ARMY.—Detailed as members of Army Medical Board to meet in New York City, May 1, 1889. Par. 5, S. O. 74, A. G. O., March 30, 1889.

By direction of the Secretary of War, the following changes in the station and duties of officers of the medical department are ordered: Major Joseph R. Gibson, Surgeon, relieved from duty at Fort Lyon, Col., and ordered to Fort Sheridan, Ill. Capt. A. H. Appel, Assistant-Surgeon, relieved from duty at Fort Sheridan, Ill., and ordered to duty at Fort D. A. Russell, Wyo. Capt. George H. Torney, Assistant-Surgeon, relieved from duty at Fort Monroe, Va., and ordered for duty to Fort Brown, Texas. Capt. Samuel Q. Robinson, Assistant-Surgeon, relieved from duty at Fort Brown, Texas, and ordered to Fort Hamilton, New York, for duty. Par. 11, S. O. 77, A. G. O., Washington, April 3, 1889.

ASSISTANT-SURGEON RICHARDS BARNETT, U. S. ARMY.—Died March 31, 1889, at Fort Riley, Kans.

CAPTAIN LOUIS M. MAUS, ASSISTANT-SURGEON (Fort Schuyler, N. Y. H.)—Will proceed to Camp S. B. Luce, Fisher's Island, N. Y., with Battery "K," 5th U. S. Art., and report to the camp commander for a tour of rifle practice. Par. 10, S. O. 158, Hdqrs. Div. of the Atlantic, Governor's Island, New York City, August 2, 1889.

By direction of the Secretary of War, leave of absence for six months is granted Captain Charles S. Black, Assistant-Surgeon, to take effect after the arrival at Fort Sidney, Neb., of Acting Assistant-Surgeon Robert P. Finley. Par. 14, S. O. 78, A. G. O., Washington, April 4, 1889.

ASSISTANT-SURGEON R. R. BALL ordered to Fort Riley, Kans., for duty. S. O. 36, Hdqrs. Dept. of the Missouri.

ASSISTANT-SURGEON R. W. JOHNSON reports departure for Whipple Bks., Ariz. Ty., March 25, 1889.

Atlanta Barracks, Ga., established by G. O. 28, A. G. O., March 21, 1889.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE TWO WEEKS ENDING APRIL 6, 1889.

ASSISTANT-SURGEON THOS. A. BERRYHILL.—Detached from Naval Academy, Annapolis, Md., and to the Naval Hospital, New York.

PD. ASST.-SURGEON A. C. HEFFENGER.—Ordered to appear before the Retiring Board, Washington, D. C.

PD. ASST.-SURGEON E. H. MARSTELLER.—Ordered to the U. S. S. "Adams."

E. H. STITT, of South Carolina, commissioned Asst.-Surgeon, U. S. N.

M. F. GATES, of Pennsylvania, commissioned Asst.-Surgeon, U. S. N.

SURGEON J. C. BOYD.—Detached from the Bureau Med. and Surg., Navy Dept., and ordered to the "Yorktown."

ASST.-SURGEON M. F. GATES.—Ordered to the Navy Yard, Philadelphia.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE FIVE WEEKS ENDED MARCH 30, 1889.

MAGRUDER, G. M., ASSISTANT-SURGEON.—To report to the Supervising Surgeon-General in person for temporary duty. March 1 and 23, 1889.

KINYOUN, J. J., ASSISTANT-SURGEON.—Relieved from duty at Baltimore, Md., to rejoin station at New York, N. Y. March 18, 1889.

PERRY, J. C., ASSISTANT-SURGEON.—Commissioned by the President, March 21, 1889. Ordered to Marine Hospital, Mobile, Ala., for temporary duty. March 22, 1889.

SMITH, A. C., ASSISTANT-SURGEON.—Commissioned by the President, March 21, 1889. Ordered to Marine Hospital, Louisville, Ky., for temporary duty. March 22, 1889.

BAILHACHE, P. H., SURGEON.—Relieved from duty at Philadelphia, Pa., to assume charge of the Service at San Francisco, Cal. March 28, 1889.

SAWTELLE, H. W., SURGEON.—When relieved at San Francisco, Cal., to assume charge of the Service at Portland, Me. March 28, 1889.

BANKS, C. E., PD. ASST.-SURGEON.—When relieved at Portland, Me., to assume charge of the Service at Vineyard Haven, Mass. March 28, 1889.

AMES, R. P. M., PD. ASST.-SURGEON.—When relieved at Vineyard Haven, Mass., to assume temporary charge of the Service at Philadelphia, Pa. March 28, 1889.

MAGRUDER, G. M., ASSISTANT-SURGEON.—When relieved at Louisville, Ky., to proceed to Memphis, Tenn., for temporary duty. March 28, 1889.

STONER, J. B., ASSISTANT-SURGEON.—To proceed to Pittsburgh, Pa., for temporary duty. March 28, 1889.

VOL. XIX.
No. 555

APRIL 15, 1889.

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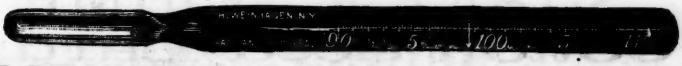

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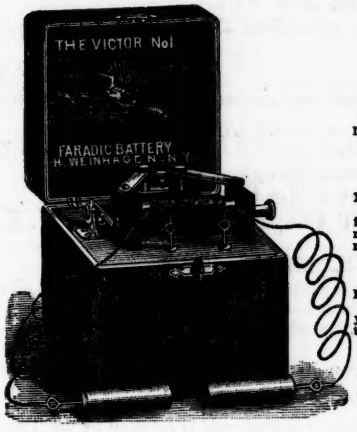

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YALE COLLEGE OBSERVATORY, NEW HAVEN, CONN., Nov. 13th, 1887.
MR. H. WEINHAGEN:
Yours of the 9th inst. duly received. * * * * With the small corrections you have attained in recent shipments, I should think you would find it profitable to have all your best Clinical Thermometers certified.
Very Respectfully, ROBT. BROWN, Sec'y.

VICTOR NO. 1.

A THREE CURRENT FARADIC BATTERY.

FOR MEDICAL USE.

Size 5½ x 5¼ x 5¼ inches. Simple, Compact, Durable and Neat.

H. WEINHAGEN,

ESTABLISHED 1855. 22 and 24 North William St., New York.

LANOLINE LIEBREICH.

PATENTED.

The New Base for Salves and Ointments, is of White Color and Perfectly Odorless; for Burns, Wounds and all Skin Diseases.

Has valuable antiseptic properties.

MANUFACTURED BY

Messrs. Benno-Jaffe & Darmstædter, Martinikenfelde, Germany.

LUTZ & MOVIUS, New York.

SOLE AGENTS FOR U. S.

NEW FORM. (More Easily inserted than old shape.)

GLYCERIN
SUPPOSITORIES.

(Containing 90 Per Cent. Glycerin.)

(See article by Dr. J. P. Crozer Griffith on their use in ordinary or obstinate constipation, *Medical News*, December 8th, page 629.) We make two sizes, (infant and adult). Put up in boxes of one dozen and sent by mail on receipt of 50 cents. When prescribing write, Suppos: Glycerin-Blair. Made by

HENRY C. BLAIR'S SONS,

PHILADELPHIA.

C. O. P.
Cotton Seed Lard.
ANTI-DYSPEPTIC.
WARRANTED FREE FROM HOG FAT.

PURE, WHOLESOME, ECONOMICAL.

J. W. Tappin, Esq., Manager, *The Cotton Oil Product Co.*

Dear Sir:—I was induced by the advertisements of your Lard to try it in my family. It proved so satisfactory in every way that I take pleasure in recommending it to all who have any antipathy to the use of Hog's Lard; it is more palatable, more digestible, and more economical, and I think from short trial of it, more healthful.

Respectfully yours, *H. M. HITCHCOCK, M.D.,*
Medical Examiner Mutual Reserve Fund Life Association, N. Y.

For sale by all Grocers. Send for Illustrated Pamphlet, entitled:
"SOME THINGS ABOUT LARD."
Branch of THE COTTON OIL PRODUCT CO., 19 West 42d St., N. Y.

MEMBERSHIP FREE UNTIL MAY 1, 1889.

The North American Mutual Benefit Assoc ation was organized in 1880, under the law of Illinois. The Physicians', Dentists' and Druggists' Department was organized in 1886 to furnish Co-operative Insuranc to a body of professional men and women who understand the laws of health, and are, therefore, better risks than the average.

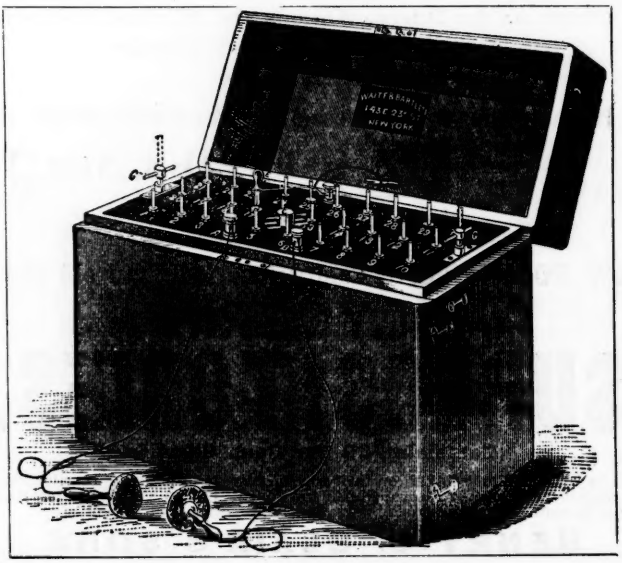
Mortuary assessments are paid to and held by the North Western National Bank, of Chicago, as Trustee, and can be paid out only to the beneficiary on proof of a death-loss, thus providing for the safety of that fund.

Our guarantee fund is 33 1–3 per cent. of each mortuary payment, and is invested by the Trustee in the five per cent. bonds of the North-Western Bond and Trust Co., 94 La Salle St., Chicago, Ill. These bonds are based on first mortgages on Illinois farms, and the interest is payable semi-annually. Under this plan we are rapidly accumulating an adequate guarantee fund, which will assure those who pay present losses that theirs will be promptly paid. This plan is incomparably the best yet presented to the public, because it combines reasonable cost, less than one-half that of the best Stock Companies, with every assurance of permanency which they can offer. Our Association will live as long as men prefer to pay one price instead of two for Life Insurance.

For circulars and further information write, Messrs. Singleton, Bonnell & Co., General Managers, Room 903, Royal Insurance Building, Chicago, Ill.

WAITE & BARTLETT BATTERIES.

BEST FARADIC BATTERY, $15.00 net.



20 CELL GALVANIC BATTERY, $22.50 net.

E. A. YARNALL,
No. 1020 WALNUT STREET,
SURGICAL INSTRUMENTS. **PHILADELPHIA.**

Carnrick's Soluble Food

IS THE NEAREST APPROACH TO HUMAN MILK THAT HAS THUS FAR BEEN PRODUCED.

During the past season a large number of Physicians and eminent Chemists visited our Laboratory at Goshen, N. Y., and witnessed every detail connected with the production of Carnrick's Soluble Food. This invitation to witness our process is continuously open to Physicians and Chemists. All expenses from New York to Goshen and return will be paid by us. The care used in gathering the milk, its sterilization, and the cleanliness exercised in every step, cannot be excelled.

Pancrobilin.

Prepared (in both Liquid and Pill form) from Extract of Pancreas and Bile.

This preparation is designed expressly to increase the digestion and absorption of fats.

We believe that the fat-digesting properties of pancreatine and bile are inseparable, and that without their union in the intestinal tract but little, if any, fat would be digested and absorbed.

PANCROBILIN will be found of great service in *Phthisis and other wasting diseases, Nervous Prostration, Constipation, Inanition, Malnutrition, Intestinal Indigestion,* and wherever there is a failure to assimilate fats.

If the skin is first wet with LIQUID PANCROBILIN, the inunction of oils will be greatly facilitated.

LIQUID PANCROBILIN is put up in pound bottles.

PILL PANCROBILIN is put up in bottles holding 100 pills. The coating of the pills will resist acid digestion, when given as directed, but will be quickly dissolved in the alkaline secretions of the duodenum.

Phospho-Caffein Comp.

(*Granular Effervescing.*)

Formula for each dessertspoonful:—

Caffein	
Acidi Phosphorici	āā gr. ss
Antipyrin	
Ext. Apii. Grav. dulc. (*Celery*)	āā gr. j
Sodium Bromide	gr. v

The satisfactory results produced by PHOSPHO-CAFFEIN COMP. in *Headaches, Neuralgia Insomnia, Neurasthenia and general Nervous Irritability,* are not due to the effect of any one ingredient, but to the happy effect of the combination. A thorough series of comparative tests have demonstrated the superiority of the above formula over any other in the market.

REED & CARNRICK, New York.

COMPARATIVE DIGESTIVE POWER OF PEPSINS.

R. H. Chittenden, Ph. D., Professor of Physiological Chemistry at Yale University, in a paper on Digestive Ferments, read before the New York Academy of Medicine, January 23, 1889, and published in the *Philadelphia Medical News*, February 16, 1889, says,—

"As a final result, then, we may consider the true proteloytic power of the following pepsin compared with one of the highest digestive power to be as follows:

	Relative Proteolytic Action.		Relative Proteolytic Action.
1. Parke, Davis & Co.'s Pepsinum Purum in Lamell s	100	5. Ford's Pepsin in Scales	32
2. Fairchild's Pepsin in Scale	52	6. North's Pure Pepsin	16
3. Scheffer's Dry Pepsin, Concentrated	48	7. Boudaults's Pepsin	14
4. Jensen's Crystal Pepsin	35	8. Royal hemical Co.'s Pure Pepsin	9

Other eminent investigations have reached the same results as to the pepsin of highest digestive power.

We will leave physicians to draw their own conclusions as to what pepsin to prescribe, from the facts above submitted.

Reprints of this and other articles relating to the quality, incompatibilities and therapeutic application of pepsin mailed to physicians on request.

CASCARA SAGRADA.

Extension of its Therapeutic Application and Improved Forms for its Administration.

Notwithstanding the activity of research in the discovery of new theraputic agents, and the efforts made to supplant it, Cascara Sagrada remains to-day easily chief of the remedies for the radical relief of chronic constipation.

Not only this, but the range of application of Cascara Sagrada has been extended to the treatment of Rheumatism, and in this disease, alone and in combination with the Salicylates, it has proved in the experience of many eminent physicians radically curative.

The physician now has the choice of several eligible forms in which to prescribe it; the fluid extract containing the bitter principle; the fluid extract formula, 1887, comparatively free from bitterness and equally efficacious in the majority of cases; soluble elastic capsules of the extract, from one to three grains; pills of the extract, alone or in combination with adjuvants, and many other eligible forms.

Any therapeutic action inherent in Cascara Sagrada is only possessed by the true *Rhamnus Purshiana*, and there being many inferior and spurious preparations of the drug in the market, we would ask physicians in prescribing to specify our product. Having introduced this drug and made a special study of its nature and action for years, and having unequalled facilities for obtaining supplies of the highest quality, we believe our product to be superior to any other offered.

We would particularly request physicians who have not met with success in the use of Cascara Sagrada to ascertain the product they are prescribing, and to make trial of that of our manufacture.

Working bulletins and interesting literature relative to Cascara Sagrada furnished to physicians, free, on request.

GLYCERIN SUPPOSITORIES.

(*Suppositoria Glycerini, Suppositoria Aperitiva*).

Containing 95 per cent. Glycerin.

A Convenient Method of Treating Constipation.

This ready means of securing defecation is likely to become very popular. It is a great improvement over the injection of glycerin and quite as efficacious.

To those physicians who have not employed them we commend their early trial, and to this end we will furnish samples free on request.

In prescribing, we ask physicians who desire to use a reliable, active product to specify glycerin suppositories of our manufacture.

PARKE, DAVIS & CO.,

DETROIT - AND - NEW YORK.

NOTES AND ITEMS.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

The Fortieth Annual Meeting of the Medical Society of the State of Pennsylvania will be held in Pittsburgh, on Tuesday, Wednesday, Thursday and Friday, June 4th, 5th, 6th, and 7th, 1889, commencing on Tuesday, June 4th, at 9 A. M.

Appointments for 1889: 1. Address on Practice of Medicine, Dr. J. C. Wilson, of Philadelphia; 2. Address on Surgery, Dr. J. B. Roberts, Philadelphia; 3. Address on Obstetrics, Dr. Frances N. Baker, Media; 4 Address on Mental Disorders, Dr. Alice Bennett, Norristown; 5. Address on Laryngology, Dr W. H. Daly, Allegheny; 6. Address on Hygiene, Dr. T. J. Mays, Philadelphia. Chairman of Committee of Arrangements: Dr. E. A. Wood, of Pittsburgh, to whom all applications to read papers at this session should be addressed.

Secretaries of County Medical Societies are earnestly requested to forward at once complete lists of their officers and members, giving the post-office address of each;—at least two weeks before each annual session of this Society, they shall forward certified lists of their respective delegates to the Permanent Secretary, who shall therefrom prepare a list of all the delegates to be handed to the Committee on Credentials.—Art. V., Sect. 6. Every delegate, before admission, shall present a certificate of delegation, signed by the president or secretary of his County Society. Every permanent member (not a delegate), before admission, shall present a certificate of good standing in his County Society.—(Extract from Constitution) Wm. B Atkinson, M.D., 1400 Pine Street, Philadelphia, Permanent Secretary. All who desire excursion orders should notify the permanent secretary at an early date, stating which railroad must be used.

A DANGER PECULIAR TO RESIDENCE IN FLATS.

The *Lancet* (London) raises its voice of warning to apartment house occupants, which is worth considering. An ordinary householder has access to every portion of the building in which he lives, and should he suspect a defect, he can ascertain how far his suspicion is correct, and remedy it. But in the case of flats, while the actual apartments rented may be free from all risk of evil, the tenant is, in point of health, almost entirely at the mercy of his landlord and of the occupiers of the basement, in so far as the main drainage of the premises is concerned. If this latter be wrong, the whole mansion is apt to be filled with foul air from below upward. A number of cases have come under our notice in which very serious ill health has been thus induced, and in which tenants have only been too glad to pay what was demanded of them in order to get out of the premises with the least possible delay. While no one should take a residence without skilled advice as to its sanitary state, this precaution is more than ever necessary in the case of flats, where the entire premises, including, above all things, the basement, should be thoroughly overhauled.—*Scientific American.*

A PLUMBER'S TRICK.

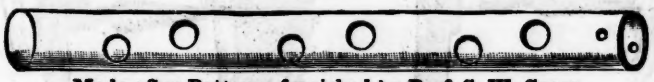
The *Sanitary News* describes a new plumber's trick, which has been first discovered in Milwaukee, but may be known elsewhere, so that architects and inspectors will do well to be on their guard against it. In Milwaukee, as in many other cities, all soil pipes put up in dwelling houses must be tested by filling them with water. A certain firm, knowing that a defective pipe had been used, contrived to plug it with clay, so that the water applied for testing it did not enter the pipe at all.

The following resolution was unanimously adopted by the Alumni Association of the Medico Chirurgical College at its stated annual meeting held April 3, 1889:

"That the Alumni Association expresses its approval of the establishment of a State Board of Medical Examiners, provided an applicant for examination before such Board of Examiners shall hold a diploma from a medical college or university, requiring not less than a three (3) years' graded course; and that it heartily recommends that the time be increased from three to four years (graded course)".

[CONTINUED ON PAGE XII.]

ANTISEPTIC DRAINAGE TUBES.—GLASS.



Made after Patterns furnished by Prof. S. W. Gross.

These tubes have large holes, one-half inch apart, arranged alternately on opposite sides.
They are carefully finished, especial care being taken to make them smooth.
In addition to the drainage holes, each tube has at one end, two smaller holes for the insertion of Safety Pin, through which it is prevented slipping into the wound.

FURNISHED IN SEVEN SIZES.

No. 1, $1.25 per doz.		No. 4, $1.55 per doz.	
No. 2, 1.25	"	No. 5, 1.70	"
No. 3, 1.40	"	No. 6, 1.90	"
No. 7, $2.10 per doz.			

RAW CAT-GUT. I put this up in coils of 10 feet, four different sizes, Nos. 1, 2, 3, 4, (4 is thickest.) Nos. 2 and 3 are the most useful sizes. **No. 1, coil 10 cents; No. 2, coil 12 cents; No. 3, coil 14 cents; No. 4, coil 16 cents.** Full directions with each coil for making it absolutely aseptic.

WILLIAM SNOWDEN,
MANUFACTURER, IMPORTER AND EXPORTER OF SURGICAL INSTRUMENTS,
No. 7 SOUTH ELEVENTH ST., Phila

Platt's Chlorides,

A LIQUID DISINFECTANT.

ODORLESS, COLORLESS, POWERFUL, ECONOMICAL.

ENDORSED BY OVER 16,000 PHYSICIANS.

INVALUABLE IN THE SICK ROOM.

A NECESSITY IN THE HOUSEHOLD.

Sold by Druggists in quart bottles only. Price 50c.

To any physician who may still be unacquainted with it, a sample will be sent free of expense, if this journal is mentioned, by addressing

HENRY B. PLATT, 36 Platt St., New York.

PHTHISIS.

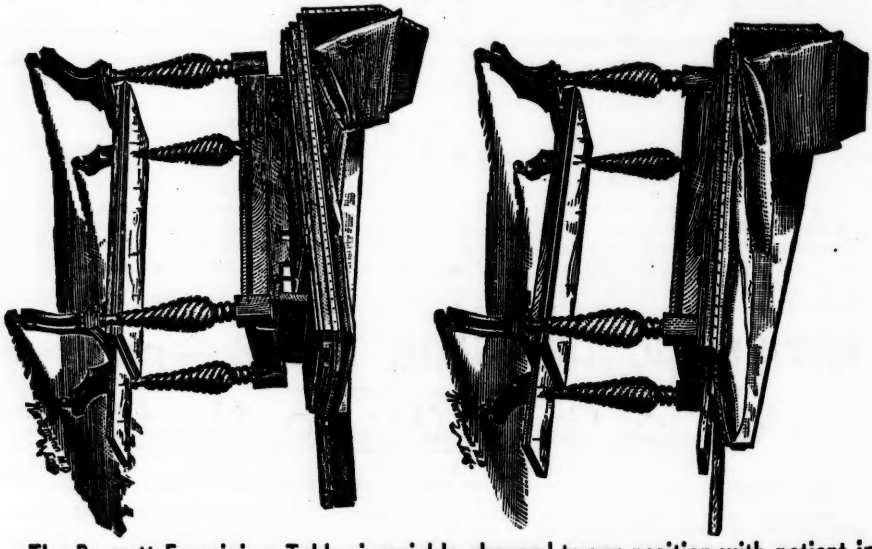
The Manual of Treatment details the methods recommended by LOOMIS, NIEMEYER, MCCALL ANDERSON, WOODBURY, DAVIS, BARTHOLOW, FOTHERGILL, ROBERTS, BENNETT, FOSTER, WILLIAMS, RUHELE, TANNER, YEO, DACOSTA, HILLER, ALBRECHT, WARREN, PEPPER, ROBINSON, CAUTANI and WAUGH.

PRICE, $4.00, OR WITH THE "TIMES," $5.00.

Address,

PHILADELPHIA MEDICAL TIMES CO.,

1725 Arch Street, Philadelphia.



The Daggett Examining Table, is quickly changed to any position with patient in place. It has Inclinations, Head-Board, Knee-Rail, Ankle Rest, Stirrups, Step, Wood or Upholstered Top, Mechanism simple and perfect, Folding Cushions, a Case of Drawers. Address, Dealers or B. H. DAGGETT, BUFFALO, N. Y.

LACTOPEPTINE is a skillfully prepared combination of Meat-converting, Fat-converting and Starch-converting Materials, acidified with the small proportion of Acids always present in the healthy stomach. It is a most valuable digesting agent, and SUPERIOR TO PEPSIN ALONE."—Prof. ATTFIELD, Ph. D., F.R.S., &c., *Prof. of Practical Chemistry to Pharmaceutical Society of Great Britain.*

The most eminent and successful Practitioners consider LACTOPEPTINE the Standard remedy in the treatment
LACTOPEPTINE
of all those ailments in which deficient digestion is the direct or indirect cause of pathological conditions.

LACTOPEPTINE.

The most important Remedial Agent ever presented to the Profession for DYSPEPSIA, VOMITING IN PREGNANCY,

CHOLERA INFANTUM,

CONSTIPATION *and all diseases arising from imperfect nutrition.*

LACTOPEPTINE IN CHOLERA INFANTUM.

We desire to direct special attention to the great value of LACTOPEPTINE in Cholera Infantum, and other intestinal troubles incident to the heated term.

Send address for our Medical Almanac, containing valuable information.

THE NEW YORK PHARMACAL ASSOCIATION,

P. O. Box 1574. **NEW YORK.**

Guaranty Investment Company.

CAPITAL, $250,000.

OFFICES: ATCHISON, KAN., 191 BROADWAY, N. Y., 222 WALNUT STREET, PHILADELPHIA.

HON. ALBERT H. HORTON, President,
Chief Justice, Kansas Supreme Court, Topeka, Kan.

7% GUARANTEED FARM MORTGAGES. 7%

THE GUARANTY INVESTMENT COMPANY presents to intending Investors the following considerations why its securities are safe and desirable.

FIRST.—The Company claims to give unusual fullness of information about the security of its loans. It places in the hands of the Investor the sworn statement of the mortgagor himself in regard to the number of acres, the nature and extent of the improvements; the sworn opinion of two of his neighbors as to the value of the land improvements; the report of an examiner who visits the farm and verifies the statements made by the mortgagor and states his reputation for thrift and economy and finally a carefully prepared statement by the officers of the Company regarding the material development of the county where the farm is located, its natural advantages and railroad facilities, with statistics about immigration and the crops of the previous season.

Every Investor can therefore judge whether the section is advancing or going backward and whether the above claim for unusual fullness of information is well founded.

No loan is ever taken in the East which has so much written proof of absolute safety.

SECOND.—The Company claims that its carefulness in taking only amply secured loans is demonstrated by the fact that

IT HAS NEVER YET HAD A FORECLOSURE OF A SINGLE LOAN.

THIRD.—Every loan is guaranteed absolutely, not merely as to validity of title, but also as to repayment of the money, and the whole capital of the Company is pledged to make this guarantee good.

Interest at the rate of Seven Per Cent. (double the rate of Savings Banks) is payable semi-annually, on the day it is due at the Importers and Traders National Bank, New York City.

FOURTH.—A Committee of Investors is sent every year to Kansas and Nebraska to examine the methods of business employed by the Company, and also to test the security of its loans by visiting the very farms themselves.

FIFTH.—The Company gives to the Eastern public the opportunity of seeing the various products raised in the very localities where it makes its loans. It had on exhibition at the American Institute of New York City from October 3d to December 15th, 1888, a beautiful assortment of Kansas and Nebraska grain, fruit and grasses. Part of the Exhibit was the display made by Custer County at the Nebraska State Fair, for which a prize of $100 was awarded.

These products can be seen at the New York Office of the Company and are well worth an examination. The Highest Reward of Superiority was given to the Company by the American Institute for this exhibit.

SIXTH.—The Company publishes every month a Bulletin giving full information about the amount, security, improvement, location, distance from railroad, &c., &c., of every loan offered for sale.

Further information in regard to any of the above points will be gladly furnished on application.

ADDRESS FOR MONTHLY BULLETIN AND INVESTORS COMMITTEE REPORT FOR 1888,

HENRY A. RILEY, General Eastern Manager,

191 BROADWAY, NEW YORK.

FORD'S AND OR GOLDEN SCALE PEPSIN

The above specifies two brands of pepsin which fill every requirement that can properly be predicated upon this wonderful ferment.

These pepsins differ only in their environments,

FORD'S PEPSIN being especially adapted for use as a permanently dry powder, alone or in combination; and

GOLDEN SCALE possessing ready solubility and admirably fitted for use in liquid form.

Physicians are now well aware that there is no logical or necessary connection between high prices and quality, and the fact is universally recognized that we were the pioneers in establishing for pepsin a relation between

LOW PRICES AND HIGH DIGESTIVE POWER

which has given occasion for greatly developing and extending the usefulness of pepsin.

Therefore, in justice to yourselves as physicians, to your patients as depending upon you, and to us as a consequence, always let the word "Pepsin" suggest FORD'S AND OR GOLDEN SCALE PEPSIN.

Write for samples. NEW YORK & CHICAGO CHEMICAL CO. 30 MAIDEN LANE NEW YORK

Dr. Benjamin Lee, secretary of the State Board of Health, has gone to Florida on a sanitary mission of some importance. The legislature of that state at its last session passed a resolution requesting that a commission of sanitary officials should visit Jacksonville and other points especially exposed to yellow fever, and confer with the newly created State Board of Health as to the proper means to adopt to prevent a recurrence of the serious epidemic of previous years. Dr. Lee represents the interests of the Middle Atlantic District on the commission. Had a State Board of Health been in existence there two years ago, many lives and millions of dollars might have been saved. It is to be hoped that the result of this conference will be so to strengthen the hands of the young Board that all the money needed to carry out the measures proposed will be forthcoming, and that its orders will be implicitly obeyed.

MEDICO-CHIRURGICAL COLLEGE.

QUESTIONS ON THERAPEUTICS.

1. Write a prescription for each of the officinal drugs used to produce anæsthesia for surgical operations. What symptoms may arise during the anæsthetic sleep that would indicate danger to the patient? What treatment would be appropriate in each case?

2. Give the antidotes to poisoning by Strychnine. Rough on Rats. Paris Green. Carbolic Acid. Corrosive Sublimate.

3. Write a prescription for a cardiac depressant in combination with a diaphoretic in proper form and dosage.

4. What is an alterative? Give examples of officinal preparations used as alteratives.

5. Write a prescription, and indicate the treatment, for a case of Rachitis, in a child of one year of age.

6. Give the Pharmacopœial definition of Colchicum. What preparations are officinal? Give their doses.

7. What is the physiological action of Digitalis? Which conditions of the heart and blood-vessels would suggest caution in its use?

8. A patient, who has been taking medicine for some time, presents himself in the following condition: face pale; offensive breath; bad taste in the mouth; tongue swollen and furred; gums soft, bleeding, falling away from the teeth; free flow of saliva; loss of appetite; general prostration; and tendency to diarrhœa. What agent would cause such symptoms? What treatment should be instituted?

9. Give the source of the following agents and very briefly outline their action and therapeutic applications: Atropine, Apomorphine, Salicylate of Physostigmine, Codeine and Thebaine.

10. Define the term "Reaction of Degeneration," in electro-therapeutics.

A musicale and promenade concert was held at Hazeltine's galleries for the benefit of the Medico-Chirurgical Hospital on Monday evening, April 8, 1889. The galleries were crowded with an appreciative audience. We understand that a handsome sum was realized for the Hospital.

The music was furnished by the Apollo Club, Mr. William B. Elliott, Musical Director, assisted by the following artists: Madame Edouard de Castel, Soprano; Prof. Carl Wittig, Musical Director St.John's R. C. Church; Prof. Charles F. Blandner, Pianist; Mr. H. J. Harris, leader of orchestra.

SYPHILIS AND ATAXY.—Among patients affected with nervous diseases, tabes and progressive paralysis are encountered with equal frequency. Among Jews; tabes 0.7 per 100; paralysis 0.7 per 100; among Russians: tabes 3.25 per 100: paralysis 4.8 per 100.

Syphilis is also five times more frequent among Russians than among the Jews.

—MINOR, in *Arch. de Neurol.*

Dr. Alfred Ludlow Carroll has removed to 30 West 59th street, New York.

A graduate of this spring, who is also a graduate of Pharmacy, and speaks German and English, desires a situation as assistant to a physician in active practice. Address, M.D., Ph.G., at this office.

A young physician with good recommendations, whose time is not fully occupied with his literary work, is at liberty to assist a physician. For further particulars apply to Mr. J. H. Black, 1818 Arch Street, Philadelphia.

[CONTINUED ON PAGE XVIII.]

GONORRHŒA

I have recently published a compact twenty four page pamphlet on **"The Treatment of Gonorrhœa and its Sequelæ,"** by means of Soluble Medicated Bougies, containing many valuable hints for treatment. This will be sent **free** on application, together with samples of the Bougies, to any physician who will mention the "Phila. Medical Times," and enclose his business card or letter heading. Address

MANUFACTURER OF **CHARLES L. MITCHELL, M.D.,**

Soluble Medicated Gelatin Preparations. **1016 Cherry St., Philadelphia, Pa.**

RESTORATIVE WINE OF COCA

For Nervous Prostration, Brain Exhaustion, Neurasthenia, and all Forms of Mental and Physical Debility.

This WINE OF COCA is so prepared that it contains the active principle of the leaves in a perfectly pure form. Moreover, it is absolutely free from all those foreign substances which all other wines of coca contain, and which interfere, to a great extent, with its curative influence. It is well-known that the cocaine contained in the coca leaves varies considerably in its proportion; hence, giving to the wines as ordinarily made uncertain strength, and causing them to be unreliable in their action on the system. In the RESTORATIVE WINE OF COCA the proportion of alkaloid is invariable, and the physician can, therefore, prescribe it with the certainty of obtaining uniform results.

Prof. M. Semmola, M.D., of Italy, says: Having tested and made repeated examinations of the RESTORATIVE WINE OF COCA, I hereby testify that this preparation is most excellent as a restorative in all cases of general debility of the nervous system, especially in disorders arising from excessive intellectual strain or other causes producing mental weakness. I also consider this wine invaluable for the purpose of renewing lost vitality in constitutions enfeebled by prolonged illness, particularly in cases of convalescence from malignant fevers.

Prof. Wm. A. Hammond, M.D., says: A wine-glassful of this tonic, taken when one is exhausted and worn out, acts as a most excellent restorative; it gives a feeling of rest and relief, and there is no reaction and no subsequent depression. A general feeling of pleasantness is the result. I have discarded other wines of coca and use this alone. It produces also excellent results in cases of depression of spirits; in hysteria, headache, and in nervous troubles generally it works admirably. It is a simple remedy, yet efficacious and remarkable in its results.

FEBRICIDE.

A complete Antipyretic, a Restorative of the highest order, and an Anodyne of great Curative Power.

℞ Each pill contains the one-sixth of a grain of the Hydrochlorate of Cocaine, two grains of the Sulphate of Quinine, and two grains of Acetanilide.

In the dose of one or two pills, three times a day, "Febricide" will be found to be possessed of great curative power in Malarial Affections of any kind, and in all inflammatory diseases of which Fever is an accompaniment. **For Neuralgia, Muscular Pains, and Sick Headache, it appears to be almost a Specific.** Reports received from Physicians of eminence warrant us in recommending "Febricide" in the highest terms to the Medical Faculty.

Dr. J. A. Brackett, of Pembroke, Va., writes: I have used FEBRICIDE in a case of childbed fever with remarkable effect, temperature 103. I had tried other usual remedies without much change, soon after using FEBRICIDE the change was like magic.

Dr. C. E. Dupont, of Grahamville, S. C.: FEBRICIDE has proved of great benefit to the patient I tried it on. It was a case of malarial Toxæmia, in an old lady, the attacks had become very irregular and lately had been attended with intercostal neuralgia, which alarmed the patient exceedingly; she is charmed with its action. FEBRICIDE certainly acted well and quickly as heretofore it usually took me 10 days at least to relieve her of an attack, but this time she was up on the 4th day and wanting to go on a visit.

Dr. R. C. McCurdy, of Livermore, Pa.: Have used FEBRICIDE in two cases with *grand results.* In one case of sick headache it acted immediately.

NATROLITHIC SALT.

Containing Sulphate of Soda, Carbonate of Soda, Phosphate of Soda, Chloride of Sodium, Sulphate of Lime, Sulphate of Magnesia, and Carbonate of Lithia. For Habitual Constipation, Rheumatism and Gouty Affections. Biliousness, Corpulence, Dyspepsia, and all Derangements of the Digestive Tract, it is a wonderful remedy. *Does not gripe after administration.*

YARDLEY, PA., July 15, 1887.

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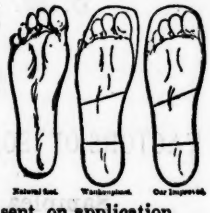

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There is nothing like going from home to hear the news. The *Revue Scientifique* reports that an American proposes to issue pathological works accompanied with *phonographic plates*, giving the sounds of the heart, lungs, etc.

The use of light beer is rapidly spreading in India. This is supposed to be a deep laid scheme of Bismarck. Next, he will claim all as German in whose veins beer will circulate, and, on that pretext, will annex India.

Professor Gross is at the time of writing lying sick with pneumonia.

It is said that an attempt is being made to boom an Arizona candidate because he is fond of champagne. Won't do! The qualification is too general. This reminds us of a little anecdote. In our college days, one of the theological students who, even at that early date, had developed a love of quacking, was quite enthusiastic over the "Hygeio-Therapeutic System." One day he was called out to see a patient, for whom he prescribed a pack and a bath. On returning to his room he consulted his manual and found that, assuming his diagnosis to be correct, the prescription was that set down in the book. This pleased him so much that he bragged a little of his proficiency, until another student remarked that there was but little chance of making a mistake, as the book *always* prescribed a pack and a bath, no matter what was the disease.

[CONTINUED ON PAGE XXVII.]

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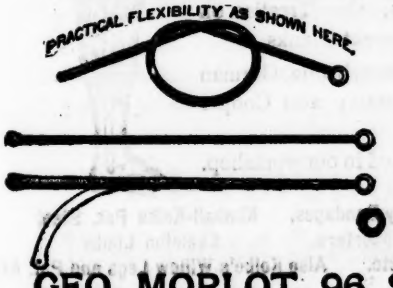

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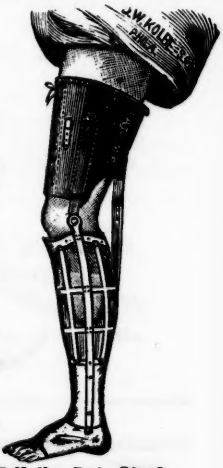

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An exhibition of progress in pharmacy and the allied branches was given at the Philadelphia College of Pharmacy, March 13th, 14th, and 15th.

Many very curious books, mortars, specimens, physical and chemical apparatus, and other interesting articles were loaned to the exhibition by Professors Remington, Maisch, Trimble, and Sadtler; and some very creditable specimens of handiwork were sent by alumni of the College.

A roll of adhesive plaster, made in 1850 and still in good condition, socotrine aloes in the skin of a monkey, some scales without weights, and the compressed pill-machines, attracted much attention.

The wholesale and retail druggists and merchants were well represented.

One of the prettiest specimens was a mass of nitrate of ammonia, three feet in diameter, in the exhibit of Powers & Weightman.

Displays worthy of more than a passing glance were made by H. K. Mulford & Co., of unfermented wines and fruit juices, and a compressed tablet machine, costing $100, and easily able to turn out from 120 to 150 tablets per minute; Whitall, Tatum & Co., a fine exhibit of glassware and furnishings; French, Richards & Co., various drugs, and the delicate Springer torsion balance; H. Troemner, fine scales; Rosengarten & Sons, and Powers & Weightman, drugs and chemicals; Henry C. Blair's Sons, glycerine suppositories and other preparations; Wm. R. Warner & Co., Robert Shoemaker & Co., and Keasby and Mattison, interesting and beautiful specimens.

Johnson & Johnson exhibited a framed assortment of their plasters.

The preparations of Hance Bros. & White, Stevenson, Barnes & Jester, James T. Shinn, and the Smith & Kline Co., and the chemical apparatus of Bullock & Crenshaw, were well represented.

Rattlesnake oil, and Merck's preparations were exhibited by Graff & Dannenbaum, importers.

Procter's pure pepsin was, as usual, not difficult to find, and beef extracts, cocoa preparations and candies were on all sides.

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NOTICE.—An Army Medical Board will be in session in New York City, N. Y., from May 1st to 31st, 1889, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application for the necessary invitation to the Secretary of War before May 1, 1889, stating the place of birth, place and State of permanent residence, and enclosing certificates based on personal knowledge from at least two persons of repute, as to American citizenship, character and moral habits. Testimonials as to professional standing, from professors of the Medical College from which the applicant graduated, and of service in hospital from the authorities thereof, are also desirable. The candidate must be between 21 and 28 years of age, and a graduate from a *Regular Medical College*, evidence of which, his Diploma, must be submitted to the board.

Further information regarding the examinations and their nature may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

JNO. MOORE,
Surgeon General, U. S. Army.

Surgeon General's Office, Washington, D. C., April 1, 1889.

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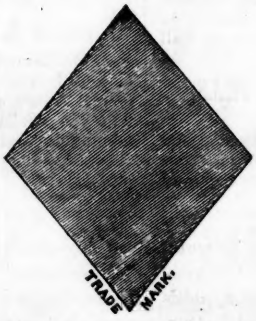
DEMAND THE 

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